



Transport Safety Seminars May 2018



VENUES

Wednesday 16th May

Limerick City
Strand Hotel

Thursday 17th May

Waterford City
Tower Hotel

Wednesday 23rd May

Athlone
Sheraton Hotel

Thursday 24th May

Dublin Airport
Carlton Hotel

AGENDA

08:00 *Registration/Tea & Coffee*

08:30 *Opening Address –*

**Work Related Vehicle Safety in your business.
The main issues of concern.**

Deirdre Sinnott, Senior Inspector WRVS Unit, HSA

08:45 **Workplace Transport Risk Management priorities in deliveries and collections**

Load securing, tail lifts and lorry loaders.

Michael Walsh, Inspector, HSA

9:15 **Preventing Vehicle related Slips Trips and Falls**

Eamonn O' Sullivan, Inspector, HSA

9:35 **Managing Vehicle risks in the workplace - Forklifts, pedestrians, reversing, manoeuvring.**

Deirdre Sinnott, Senior Inspector, HSA

9:55 *Break*

10:15 **Ergonomics Risk Management in Transport Operations**

Frank Power, Inspector, HSA

10:45 **Vehicle maintenance**

Michael Walsh, Inspector, HSA

11:00 **Employer case study, Vehicle related risk management, what it looks like in practice - TBC**

11:30 **Questions and Answers** (*Close of seminar at approximately 12 noon*)

Housekeeping



Work-related vehicle safety in your business

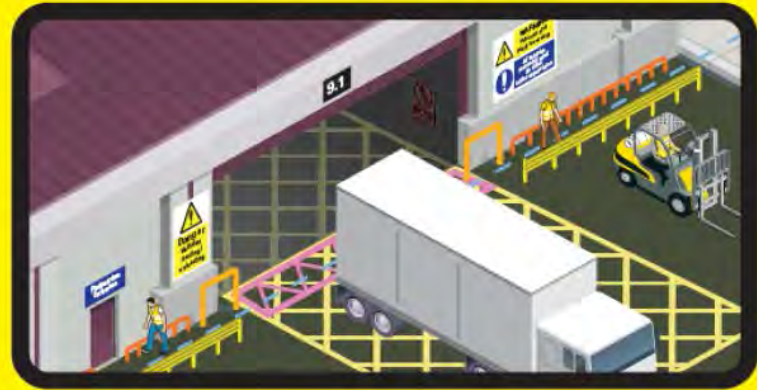
The main issues of concern

Deirdre Sinnott
Senior Inspector
Work Related Vehicle Safety Programme

Why are you here today?

- Sharing the 'Big Data'
- Issues of concern
- The cost of accidents to you and your business
 - What compliance looks like
 - Preferred practices
- Key resources and guidance available
- Enabling bet

Watch Out - Traffic About!



Top 10 Workplace Transport Safety Tips:

1. Control entry to your workplace.
2. Keep pedestrians & vehicles apart.
3. Eliminate vehicle reversing, where possible.
4. Provide clearly marked pedestrian walkways.
5. Mark & signpost vehicle only areas.
6. Ensure all work areas are well lit.
7. Keep traffic routes free of obstructions /mark permanent obstructions.
8. Provide impact protection for vulnerable parts of the workplace such as lamp posts & columns.
9. Provide & wear high visibility personal protective equipment.
10. Accompany visitors.

These simple steps save lives.

Protecting Workers from Vehicle Risks



Who else needs protecting?



The Legal Imperative

89/391/EEC

[Safety Health & Welfare at Work Act 2005]

Employer duty of care

Employee
duty of care

Safe place
of work
[Vehicle]

Safe
systems of
work

Assess and
Control Risks
[Risk
assessment]

Policy
Procedures

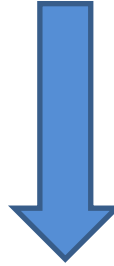
Instruction
Information
Training

Safe
work
equipment

Work
Safely

Safe Systems Approach

Occupational Health & Safety Legislation
Road Safety Legislation
Road Traffic Act and Regulations
Standards



Employees

Employers

**Safe
Vehicles**

Safe, suitable and fit
for purpose for every
journey every day

**Safe
Drivers**

**Managing &
Monitoring Driver
Behaviour**

**Safe
Operations**

Reversing
Parking
Loading/unloading

**Safe
Journeys**

Optimising
interactions with
other road users

Workplace Transport Safety

"Safe Systems Management Framework "



Vehicle selection and maintenance

Driver selection, training and management

Safe Workplace

Work Related Vehicle Deaths 2009-2015



152 Work related
vehicle deaths (43%)

Average of 22 work
related vehicle deaths
each year



July most dangerous
month

Tractors involved in 30 fatalities




The Victims



Most Dangerous Sectors



Main Causes of Death

- 
1. Hit or run over by a vehicle
 2. Crushed or trapped by vehicle
 3. Vehicle overturn
 4. Fall from a vehicle



- Most fatalities happened in:
- Cork (27)
 - Tipperary (9)
 - Dublin (13)
 - Clare (8)
 - Galway (9)

Workplace Fatalities Involving Vehicles

2018*

*As of 31st March

Total workplace fatalities

9

55%
involved a
workplace
vehicle (5)

Sectors with
Vehicle Fatalities



3 Agriculture



2 Manufacturing

Vehicle types involved



2



1



2

1

self-employed
victim

All 

male victims

Top 3 Risky operations



Fork lift operations

- Forklift condition
- Training of driver
- Workplace arrangements



Loading and Unloading operations

- Loads falling onto people
- Falling from load area of vehicle
- Forklift operations
- Control of loading zones



Driving

- Reversing
- Slow speed manoeuvres
- Coupling/uncoupling of trailers

Work Related Vehicle Injuries 2009-2013

Sectors Most Affected

-  Public Admin
-  Transport
-  Manufacturing
-  Retail
-  Construction
-  Healthcare



29,121 accidents reported to the HSA



4,944 involved a work related vehicle (12%)



Real figure could be more than 13,000*



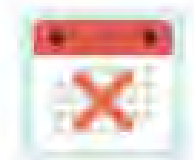
Back injuries made up 24% of the total

Main Accident Triggers

1. Losing control of vehicle or equipment
2. Pushing and pulling
3. Falls

Causes of Injury

1. Collision with object
2. Physical strain
3. Slips, trips and falls



Over 25% of injuries led to more than one month off work



Most accidents happen between 8am and 11am



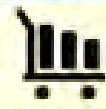
Items most associated



Vans



HGV



Loads / goods

*Estimates suggest that only 37% of work-related accidents are reported to the HSA

There are people behind the numbers

Driver fatally crushed by cargo

Square timber load came through drivers cab when he lost control of vehicle because of high speed

20 year old temporary Worker fatally crushed by trailer during coupling

Inexperienced worker crushed between tractor unit and trailer

23 year old driver falls off semi-trailer while checking cargo

Driver jumped down from side of trailer and broke his heel bone. Unable to work for 2 months

Tyre explodes on 44 year old driver during semi-trailer check

Driver was inspecting tyre of side of road when it exploded. He sustained several fractures to both hands. Unable to work for 6 months

Thank you





Supporting Transport Safety with BeSMART

24th May 2018

Martin O'Dea



Developed by



BeSMART.ie

Online Tool



Free

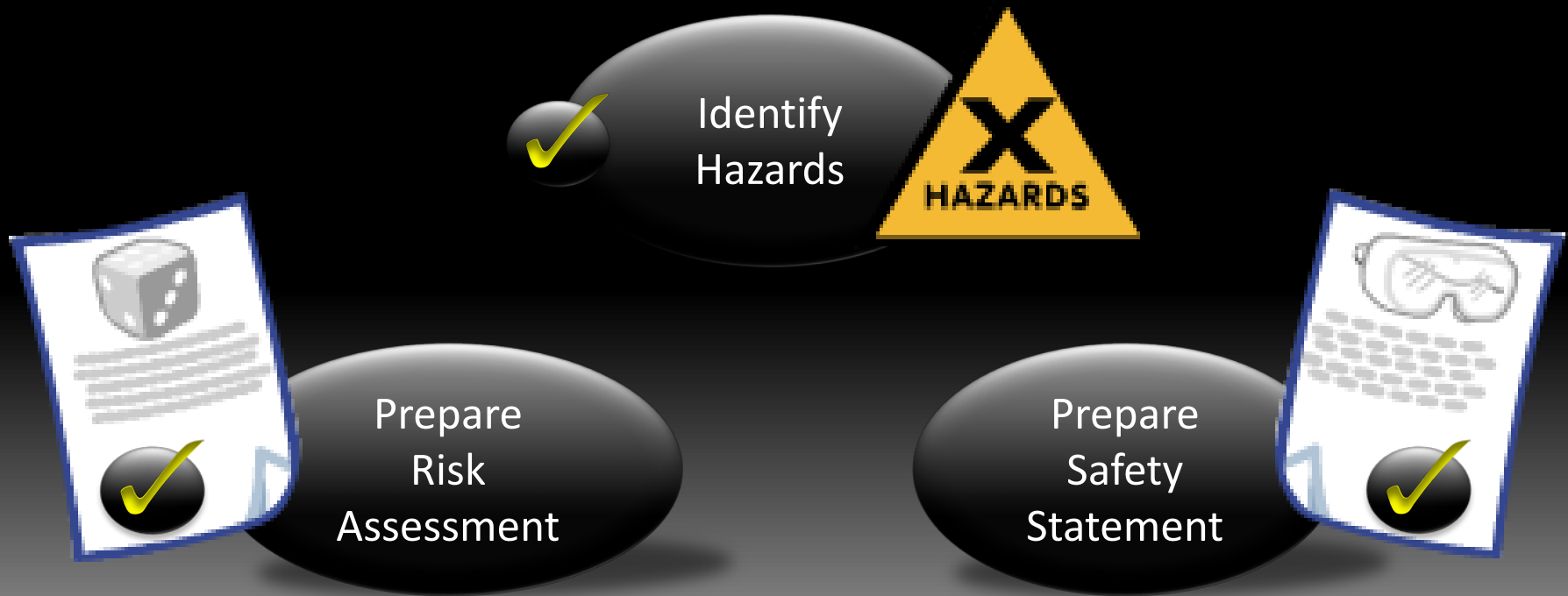


Easy-to-use



BeSMART.ie

Legal Requirement



www.besmart.ie




BeSMART.ie

[Home](#) [Contact Us](#) [Learn More](#) [eLearning](#)

▶ What is BeSMART.ie?

BeSMART.ie - Business electronic Safety Management And Risk assessment Tool - will help business owners / managers to prepare risk assessments and a safety statement for their workplace. It is easy to use and it will:

- Reduce the chances of an accident occurring in your workplace
- Save you time and money

 Brought to you by the Health and Safety Authority

▶ Why Register?

By registering you gain access to the following benefits:

- It's free
- It's confidential
- You can save, review and edit your completed risk assessment(s) at any time
- You can manage your action list and receive email reminders

[▶ Register Now](#)

▶ Sign In

Enter Email

.....

[▶ Login](#)

[Forgotten your login details ?](#)


[▶ Guest User](#)

▶ Agribusiness




[View Supported Businesses](#)

▶ Construction



[View Supported Businesses](#)

▶ Other Business



[View Supported Businesses](#)



BeSMART Overview





Vehicle Business Types

- ▲ Bus / Coach Hire and Operation
- ▲ Hauliers / HGV Transport / ADR
- ▲ Logistics
- ▲ Builders Providers
- ▲ Building Contractors
- ▲ Agricultural Contractors
- ▲ Couriers
- ▲ Garage

BeSMART.ie 4 Step Process

BeSMART.ie

BeSMART.ie

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1. Select

2. Risk Assessment

3. Consult

4. Complete

Management Screen

Risk Assessment for Bus / Coach Hire

Here you can download your safety statement including risk assessments, allowing you to edit, print or save. You can also manage your action list and browse hazards.



Download

Download your safety statement including risk assessments and action list
Edit, print, sign and date your document

▶ [Download](#)



Manage Your Action List

Assign actions with due dates to individuals
Close out completed actions
View Controls Not Applicable

▶ [Manage](#)



Browse Hazards

Browse all available hazards
Select any additional hazard you want to risk assess

▶ [Browse](#)



BeSMART.ie Registration

Edit, download and manage your action lists. Your work is saved and it is totally confidential.

▶ [Register Now](#)

▶ [Print Consult List](#)

▶ [Return To Hazards](#)

▶ [Confirm & Continue](#)



Finally Remember

Used correctly BeSMART will help you to...

1. Improve health and safety standards
2. Reduce accidents and ill-health
3. Reduce administrative burden by saving you time and money
4. Increase compliance with health and safety legislation

Thank you



Workplace transport risk management priorities in deliveries and collections load securing, tail lifts, lorry loaders

Michael Walsh

Inspector

Work Related Vehicle Safety Unit



Deliveries and Collections



- Essential to business, but can be some of the most dangerous activities you and your staff have to deal with.
- Many delivery and collection incidents could be prevented if there was better cooperation between the parties involved.

Joint Responsibility



Individuals (mostly drivers) are often unfairly blamed for accidents which could have been prevented if duty holders had co-operated with one another.

The **three key duty holders** are:

- the **supplier** sending the goods
- the **carrier** - the haulier or other company carrying the goods
- the **recipient** - the person receiving the goods

Loading/delivery areas

- Designated areas
- Instructions for visiting drivers
- Clear ground markings
- Clear Signs
- Authorised personnel only
- Well lit
- Safe refuges to prevent crushing
- Protection against adverse weather conditions



Safe delivery operations guidance

Delivering Safely

Consultation, cooperation and coordination
Information Sheet

December, 2013

Introduction

Do vehicles visit your workplace to deliver or collect goods or materials?

Are your vehicles used for the delivery or collection of goods or materials from other businesses?

Deliveries and collections are essential to business, but can be some of the most dangerous activities you and your staff have to deal with.

Many delivery and collection incidents could be prevented if there was **better cooperation** between the parties involved.

This information sheet describes how people and organisations involved in deliveries and collections can cooperate to prevent delivery-related incidents.

Nature of the problem

Every year, thousands of workers sustain serious and fatal injuries when working around trucks or vans which are collecting or delivering goods.

Unless vehicle movements and work activities are carefully controlled, people are at risk of:

- being hit by moving vehicles, (reversing vehicles in particular)
- slips, trips and falls in the general work area and on or from the vehicle
- injuries caused by vehicles turning over

- being hit by objects falling from vehicles
- injuries from manual handling tasks



Page 1 of 8



iru.org

RU

Safe and Efficient Goods Reception for Road Freight



[Delivering Safely Info Sheet.pdf](#)

Guidelines also applicable to other sectors where goods dispatch and delivery occurs
[Safe and Efficient Goods Reception for Road Freight](#)





Always ensure that your load is secure, it's the law.

Load Securing

Who is responsible

Load security is not the sole responsibility of the vehicle driver

Everyone has a role to play in ensuring that loads are loaded, unloaded, secured and transported safely

Duty Holders in Transport Chain

Employers

Vehicle Owners

Vehicle Operators

Transport Manager/Supervisor

Driver

Loading & Unloading Staff

Load containment and restraint

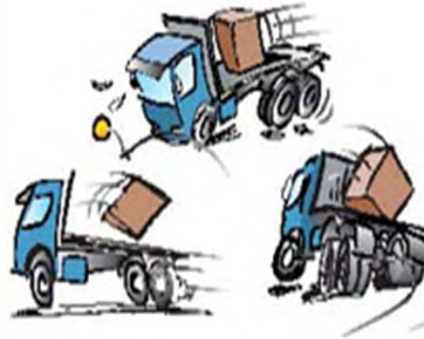


Load containment and restraint



Why should loads be secured?

Financial losses
Damage to company reputation
Increased insurance premiums



Drivers, other road users, or unloaders could be injured or killed

Shifted loads
→ Damage to goods
→ Difficulties unloading

cause road obstructions, traffic disruptions and collisions

Unrestrained goods may

- crash into the cab during emergency braking
- Cause loss of control of the vehicle
- cause vehicle to overturn

Forestry Timber: Serious Injury (IRL)



Sheet Steel Load @ 8km/hr: Fatality (UK)



Pulling back the curtain on load securing?



| | |
|---------------------------------|--------------------|
| Fahrzeugaufbau entspricht | EN 12642-XL |
| Véhicule conforme à la norm | |
| Vehicle body in compliance with | |
| Mustermann AG | 2006 |

It can be done correctly



New on the Horizon

Directive 2014/47/EU

Article 26

Transposition

1. Member States shall adopt and publish, by 20 May 2017, the laws, regulations and administrative provisions necessary to comply with this Directive. They shall immediately inform the Commission thereof. They shall apply those measures from **20 May 2018**.

- **Securing of cargo is crucial for road safety.** Annex III
- **Personnel** involved in checking whether cargo is adequately secured should be **appropriately trained**
- Applies to **all parties involved in the logistics process**
- **Enforcement:** During a roadside inspection a vehicle may be subject to an inspection of its cargo securing arrangements.

Load Securing Standards

(referred to in ANNEX III of Directive)

- EN 12195-1 Calculation of lashing forces
- EN 12195-2 Web lashings made from man-made fibres
- EN 12195-3 Lashing chains
- EN 12195-4 Lashing steel wire rope
- EN 12640 Lashing points
- EN 12642 Strength of vehicle body structure
- ISO 1161, ISO 1496 ISO container
- EN 283 Swap bodies
- EN 12641 Tarpaulins
- EUMOS 40511 Poles — Stanchions
- EUMOS 40509 Transport Packaging

| | |
|---------------------------------|--------------------|
| Fahrzeugaufbau entspricht | EN 12642-XL |
| Véhicule conform à la norm | |
| Vehicle body in compliance with | |
| Mustermann AG | 2006 |

Guidance to help Employers achieve compliance with the Directive



[Load Securing Guidance.pdf](#)



[European Best Practice Cargo Securing.pdf](#)

Guidance for specific loads

LOAD SAFETY SERIES

Information Sheet

Safe Load Securing of Precast Concrete Loads

March 2016



What the Law requires

Under Health and Safety Legislation, a vehicle is a place of work. The law requires that workplaces are maintained in a condition that is safe and without risk to safety and health. Employers have duties under the Safety, Health and Welfare at Work Act 2005 to ensure, so far as is reasonably practicable, the health and safety of their employees and others who may be affected by their work activities (other road users). This includes providing systems of work that are planned, organised, performed, maintained and revised.

Road Traffic law requires

Every load carried by a vehicle in a public place shall be of such a weight and size and so distributed, packed, adjusted and attached to the vehicle that, so far as can reasonably be foreseen, no danger is liable to be caused and that there is no interference with the stability of vehicle. In the case of mechanically propelled vehicles and trailers, no load carried shall exceed a reasonable weight, having regard to the vehicles capability; brakes, tyres and general construction of the vehicle.¹

- Other road users including pedestrians, if the load shifts sideways or slides backwards and falls off the vehicle.
- Unloading personnel, if the load has become unstable during the journey and collapses during unloading.

Load Restraint Methods

Loads can be restrained by two basic methods, either indirectly or directly using 'Tie-down' or 'Direct restraint' methods respectively.

Tie-down is when the load is prevented from moving by friction only, also called a 'frictional lashing'.

Direct restraint is when the load is prevented from moving by containing, blocking or attaching it to the vehicle.

Pre-cast Concrete Loads

Precast Concrete products are high-risk loads and the consequences of load shift can be extremely serious. Loads that are not firmly anchored to the load bed may shift during transport. This can make them unsafe. Movement of the load endangers:

- the driver, if the load slides forward during the journey or shifts sideways and causes the driver to lose control of the vehicle.



Figure 1: Example of correctly secured Precast Concrete load using chains.

¹S.I. No. 190/1963: ROAD TRAFFIC (CONSTRUCTION, EQUIPMENT AND USE OF VEHICLES) REGULATIONS, 1963, Reg 96



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Road Safety Authority

LOAD SAFETY SERIES

Information Sheet

Safe Load Securing of Plant and Machinery

March 2016

What the Law requires

Under Health and Safety Legislation, a vehicle is a place of work. The law requires that workplaces are maintained in a condition that is safe and without risk to safety and health. Employers have duties under the Safety, Health and Welfare at Work Act 2005 to ensure, so far as is reasonably practicable, the health and safety of their employees and others who may be affected by their work activities (other road users). This includes providing systems of work that are planned, organised, performed, maintained and revised.

Road Traffic law requires

Every load carried by a vehicle in a public place shall be of such a weight and size and so distributed, packed, adjusted and attached to the vehicle that, so far as can reasonably be foreseen, no danger is liable to be caused and that there is no interference with the stability of the vehicle. In the case of mechanically propelled vehicles and trailers, no load carried shall exceed a reasonable weight, having regard to the engine capacity, brakes, tyres and general construction of the vehicle.¹



Plant and Machinery Loads

Due to their size and weight, plant and machinery are considered to be high-risk loads where the consequences of load shift or load shed can be extremely serious. Loads that are not firmly anchored to the load bed can shift during transport. This can make them unsafe. Movement of the load endangers:

- The driver, if the load slides forward during the journey or shifts sideways and causes the driver to lose control of the vehicle;
- Other road users or pedestrians, if the load shifts sideways or slides backwards and falls off the vehicle;
- Unloading personnel, if the load has become unstable during the journey and moves uncontrolled during unloading.

¹S.I. No. 190/1963: ROAD TRAFFIC (CONSTRUCTION, EQUIPMENT AND USE OF VEHICLES) REGULATIONS, 1963, Reg 96



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Road Safety Authority

LOAD SAFETY SERIES

Information Sheet

Safe Load Securing of Structural Steel Loads

March 2016

What the Law requires

Under Health and Safety Legislation, a vehicle is a place of work. The law requires that workplaces are maintained in a condition that is safe and without risk to safety and health. Employers have duties under the Safety, Health and Welfare at Work Act 2005 to ensure, so far as is reasonably practicable, the health and safety of their employees and others who may be affected by their work activities (other road users). This includes providing systems of work that are planned, organised, performed, maintained and revised.



Road Traffic law requires

Every load carried by a vehicle in a public place shall be of such a weight and size and so distributed, packed, adjusted and attached to the vehicle that, so far as can reasonably be foreseen, no danger is liable to be caused and that there is no interference with the stability of vehicle. In the case of mechanically propelled vehicles and trailers, no load carried shall exceed a reasonable weight, having regard to the engine capacity, brakes, tyres and general construction of the vehicle.¹

Structural Steel Loads

Steel is a high-density, high-risk load and the consequences of load shift can be extremely serious. Loads that are not firmly anchored to the load bed can shift during transport. This can make them unsafe. Movement of the load endangers:

- the driver, if the load slides forward during the journey or shifts sideways and causes the driver to lose control of the vehicle;
- other road users or pedestrians, if the load shifts sideways or slides backwards and falls off the vehicle; and
- unloading personnel, if the load has become unstable during the journey and collapses during unloading.



¹S.I. No. 190/1963: ROAD TRAFFIC (CONSTRUCTION, EQUIPMENT AND USE OF VEHICLES) REGULATIONS, 1963, Reg 96



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Road Safety Authority

The Health & Safety Authority working in partnership with An Garda Síochána and the Road Safety Authority has developed this series of Load Safety information sheets, dealing with high-risk loads.

www.loadsafe.ie



Guidance for specific loads

LOAD SAFETY SERIES

Information Sheet

Safe Load Securing on Curtain-sided Vehicles

February 2017

Unsecured loads on curtain-sided vehicles injure many people every year. It's easy to assume that a heavy load or a very light load either won't move or won't cause a problem if it does, and it can seem like a waste of time and money to strap a load down for a short journey. The reality is that loads can and do move, however carefully you drive. Load shifts can damage the goods you're carrying, along with your vehicle, and put your life and other people's lives at risk.

What the Law requires

Load securing is covered specifically by Road Traffic legislation, which requires that loads carried by vehicles must be properly secured at all times. It is an offence for a vehicle to be overloaded or to discharge material onto the public road¹.

Occupational Health and Safety legislation² also applies to load securing. Employers have a legal duty to:

- make sure systems of work are planned, performed and maintained for securing and transporting loads;
- provide drivers and loading / unloading staff with instruction, information and training about securing loads;
- make sure that adequate equipment is provided and maintained for securing loads; and
- have appropriate plans and procedures in place in the event of an emergency such as a load shifting.

The law also requires that employers co-operate, so where several parties are involved in ensuring the safe transport of a load, there should be adequate co-ordination and co-operation between the parties and clear responsibilities laid down.



Figure 1. Mega Liner Variofloor curtain side¹

Restraint Equipment

Loads can be restrained by two basic methods, 'tie-down' or 'direct restraint':

Tie-down is when the load is prevented from moving by friction only, also called a 'frictional lashing'. It is an indirect method of restraint.

Direct restraint is when the load is prevented from moving by **containing, blocking or attaching** it to the vehicle.

¹ S.I. No. 190/1963: ROAD TRAFFIC (CONSTRUCTION, EQUIPMENT AND USE OF VEHICLES) REGULATIONS, 1963, Reg 96
² Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005)
³ Courtesy of KIRONE-UK

LOAD SAFETY SERIES

Information Sheet

Safe Load Securing of Site Cabins and Prefabricated Accommodation Units

February 2017

Due to their size, weight and configuration, consignments of site cabins and prefabricated accommodation units are high-risk loads. The consequences of load shift or load shed can be extremely serious. It is essential that units are not loaded in such a way that the vehicle or load could become unstable or the load could fall off the vehicle.

What the Law requires

Load securing is covered specifically by Road Traffic legislation, which requires that loads carried by vehicles must be properly secured at all times. It is an offence for a vehicle to be overloaded or to discharge material onto the public road¹.

Occupational Health and Safety legislation² also applies to load securing. Employers have a legal duty to:

- make sure systems of work are planned, performed and maintained for securing and transporting loads;
- provide drivers and loading / unloading staff with instruction, information and training about securing loads;



Figure 1. Prefabricated building transport

- make sure that adequate equipment is provided and maintained for securing loads; and
- have appropriate plans and procedures in place in the event of an emergency such as a load shift or load shed during transport.

The law also requires that employers co-operate, so where several parties are involved in ensuring the safe transport of a load, there should be adequate co-ordination and co-operation between the parties and clear responsibilities laid down.

Restraint Equipment

Requirements for site cabins and prefabricated accommodation units

Even though these load units can be heavy, the weight of the load alone cannot be relied on to hold it in place. If the load lifts off the bed, even momentarily, static friction is lost. Therefore friction alone cannot be relied on to hold the load in place. For this type of load the use of the 'tie-down' method on its own, is not recommended, as it relies on the combined friction generated by the weight of the load and the 'tie-down' force of the lashings alone.

¹ S.I. No. 190/1963: ROAD TRAFFIC (CONSTRUCTION, EQUIPMENT AND USE OF VEHICLES) REGULATIONS, 1963, Reg 96
² Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005)



LOAD SAFETY SERIES

Information Sheet

Safe Load Securing of Round Timber

February 2017

Due to their size, weight and configuration, consignments of round timber are high-risk loads, where the consequences of load shift or load shed can be extremely serious. Round timber is a 'live' commodity, which can lead to independent movement of parts of the load if the restraint used is not adequate. It is essential that timber is not loaded to such a height, or in such a way, that the vehicle or load could become unstable.

What the Law requires

Load securing is covered specifically by Road Traffic legislation, which requires that loads carried by vehicles must be properly secured at all times. It is an offence for a vehicle to be overloaded or to discharge material onto the public road¹.

Occupational Health and Safety legislation² also applies to load securing. Employers have a legal duty to:

- make sure systems of work are planned, performed and maintained for securing and transporting loads;
- provide drivers and loading / unloading staff with instruction, information and training about securing loads;

- make sure that adequate equipment is provided and maintained for securing loads; and
- have appropriate plans and procedures in place in the event of an emergency such as a load shifting or shedding.

The law also requires that employers co-operate, so where several parties are involved in ensuring the safe transport of a load, there should be adequate co-ordination and co-operation between the parties and clear responsibilities laid down.



Figure 1. Round timber transport operation

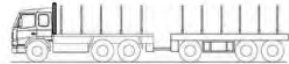


Figure 2. Example of a round timber vehicle equipped with headboard and stanchions

¹ S.I. No. 190/1963: ROAD TRAFFIC (CONSTRUCTION, EQUIPMENT AND USE OF VEHICLES) REGULATIONS, 1963, Reg 96
² Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005)



www.loadsafe.ie

Upcoming load securing guidance

Palletised Goods



Agricultural Bales



Vehicle tail lifts



What causes tail lifts' accidents

- **people falling off** the vehicle body or the lifting platform,
- **loads falling off** the vehicle body or the platform,
- loss of control of the load,
- **crushing or cutting of body parts** between the moving platform and the vehicle or ground,
- **platform mechanism failure**, and
- platform or vehicle structure failure.

Tail lift legal requirements

- **examined and certified by a competent person**
 - at least once in every 12 months,
 - after any alteration or repair, where the alterations or repairs are relevant to the safe operation of the equipment
 - a report of thorough examination is completed
 - marked to indicate safe working loads
- **all risks** associated with the use of the tail lift safely **must be identified and assessed** and written down in a safety statement,

Tail lift legal requirements

- **Train people** who are to operate the tail lift in its safe use, covering:
 - the controls,
 - working load limits,
 - load charts,
 - safe working procedures, and
 - any operating limitations of the type of tail lift they operate.
- the tail lift must be **regularly inspected and maintained**

**In the recent transport inspection campaign
inspectors found that
only 25% of employers
operating tail lifts
had a risk assessment
in respect of that activity**

Preventing falls on or from the platform or vehicle

- consider the slip-resistance of the vehicle body and the lifting platform surfaces
 - slip resistant footwear
- Consider the use of:
 - safety gates (fixed, folding or detachable),
 - roll stops (integrated into the platform, or an addition to the platform edges),
 - additional equipment such as flaps, bridge plates, run up ramps that are able to be deployed as load restraint,
 - safety chains/straps,

These should form a fixed part of the tail lift wherever possible, but can be detachable where its operation makes fixed equipment impractical.



Safe use of tail lifts

- Positioning, space, obstructions?
- load presentation, weight of pallets.
- ground surface suitable and are there any slopes or inclines?
- pedestrian activity and is it appropriate and possible to restrict pedestrian access to the area?
- Are there other vehicles and vehicle movements in the work area?
- Can a suitable route to the point of delivery be planned and agreed?



New Information sheet

Safe Vehicle Tail Lift Operations

Information Sheet

April 2018

This information sheet provides basic information and highlights legal responsibilities in the use, maintenance and examination of vehicle tail lifts (tail lifts). It is aimed at employers, the self-employed, employees and anyone who works with tail lifts which are used for everyday operations involving deliveries and collections of goods and materials.

It is **not intended** for the users of lifts used specifically for lifting people into vehicles such as wheel-chair lifts or ambulance patient lifts.

A tail lift is a mechanically operated platform mounted on a vehicle for the purpose of loading and unloading that vehicle, by raising or lowering loads between the level of the body of the vehicle and the ground. Loads are commonly placed on pallets to facilitate them being moved by using a pallet truck. There are a variety of basic designs, including:

- column,
- cantilever,
- slider, and
- tuck-away.

All tail lift operations are potentially hazardous and should be planned to make sure that they are carried out safely and that all foreseeable risks have been taken into account. Poor planning is one of the major causes of accidents arising from lifting operations. Typically, tail lift accidents involve people falling from, or slipping on tail lifts, or being struck by a falling load. But other risks, such as those arising from moving parts, or of the mechanism falling, should also be assessed. The risk of people falling should always be considered, because tail lifts involve working at a height, that is, on the body of the vehicle or on the platform itself.



Training requirements

An operator must be trained and competent before operating these lifting platforms and they need to follow documented procedures for maintenance and use. A person is deemed to be competent if they are trained and experienced, and know how to safely carry out tail lift operations, regarding the nature of the hazards involved. Training should cover:

- the controls,
- working load limits,
- load charts,
- safe working procedures, and
- any operating limitations of the type of tail lift they operate.

Lorry loader cranes



What causes lorry loader crane accidents

- **Vehicle instability** caused by overloading
- Partial or complete **loss of load** through:
 - incorrect handling methods, and
 - lifting of loads in excess of lifting capacity of the loader crane.
- **Failure** of the crane, attachment or lifting accessories
- **Overturning** of vehicle through:
 - inability of the ground to take load, and
 - failure to use or the incorrect use of vehicle stabilizers or spreader plates.
- Loader crane **striking**:
 - pedestrians,
 - other vehicles, and
 - overhead power lines.

Lorry loader crane legal requirements

- **thoroughly examined** by a competent person
 - at least once in every 12 months
- a **report of thorough examination** is completed
- any **lifting equipment** or **lifting accessory** (e.g. grapple, grab, slings, chains) is **thoroughly examined** by a competent person **every 6 months**
 - marked with a safe working load (except for ropes and rope slings),
- **must be examined and tested** after **any alteration or repair**, where the alterations or repairs are relevant to the safe operation of the equipment, **before** the equipment is returned to service

Lorry loader crane operator training

- operated by **trained** competent persons, such training to cover
 - the controls,
 - instruments,
 - working load limits,
 - load assessments and load charts,
 - safe working procedures for slinging and lifting, including hand-signals,
 - operating limitations of each type of crane and accessory they operate,
 - in-service checks.

Lorry loader crane risk assessment

- identify the relevant hazards and associated controls

- to achieve safe ways of operating the crane.

- **People Involved in Lifting Operations**

- Include banksmen, slingers, signallers, but only one person is in charge
- Suitable instruction and training
- hard hat, hi-vis clothing and safety footwear when operating the crane

Practical ways to prevent lorry loader crane (LLC) incidents.....

| Risk area | Risk | Suggested control measures |
|-----------------|-------------------------------------|---|
| Crane equipment | Failure of the crane or accessories | <p>The owner should make sure that:</p> <ul style="list-style-type: none"> • the LLC is thoroughly examined by a competent person every 12 months, • a system of ongoing monitoring/regular inspections is in place to detect deterioration in sufficient time to allow remedial measures to be taken, • lifting accessories such as clamps, chains slings, hooks, shackles, swivels, etc. are thoroughly examined by a competent person every 6 months, and inspected regularly to make sure that they are not damaged and are fit for use, • planned maintenance is carried out in accordance with manufacturers guidelines, • limit switches and emergency stops in good working order, and • controls are properly marked controls and relevant load charts are available. <p>The operator should make sure that:</p> <ul style="list-style-type: none"> • daily visual walk-around checks of the crane, in the folded out position, are carried out before the crane is used, and • defects, oil leaks or unusual noise or looseness are reported immediately to management. |
| | Unintended operation | <p>The owner should make sure:</p> <ul style="list-style-type: none"> • to carry out a complete operation check of the equipment, particularly after a repair or a change of attachment, and • that any interlocks or safety devices are properly maintained. |

Lorry loader crane considerations

Working location

| | | |
|------------------|--|---|
| Loss of load | Load falling on operator or slinger | <p>The operator should make sure that:</p> <ul style="list-style-type: none"> • people stand well clear of the lifting operation, and never between the load and the vehicle, and • the attachment or handling method being used is the right one for the load being lifted. |
| Uneven ground | <p>Overturning</p> <p>Slips, trips and falls</p> | <p>The operator should:</p> <ul style="list-style-type: none"> • only load/unload in designated loading areas, • check the area in which an LLC is to be positioned to make sure that it is suitable, and • always use the stabilizers (see overturning below). <p>• The operator should remain stationary on the ground if they are using a remote control.</p> |
| Restricted space | Striking overhead cables or other structures | <p>The operator should:</p> <ul style="list-style-type: none"> • check clearances between the vehicle and adjacent structures, • look out for overhead cables, • make sure that the extending crane mechanism will not contact or approach overhead hazards such as power lines, communications cables or overhead structures, • take extra care if work is in a confined restricted area, • consider the possibility of the build-up of exhaust fumes, and • always stow crane fully before moving the vehicle. |
| Overturning | Overturning | <p>The operator should:</p> <ul style="list-style-type: none"> • make sure that all stabilisers are fully out and down for lifting, and returned to the correct position after use, • know and understand the safe working load of the crane in the different positions, and • pay particular attention when picking up an unfamiliar load. |
| Striking people | Striking the operator or other people | <p>The operator should:</p> <ul style="list-style-type: none"> • be aware of the possibility of people in the vicinity and make sure they are clear of the working area before lifting operations begin, • keep unauthorised people out of loading/unloading area, • if using a remote control unit, stand clear of the operation, • take care when extending the stabilizers, • plan the operation to prevent lifting over people, • be aware of the possibility of people out of their line of sight, and • if lifting in an area to which the public have access, cordon off the area and provide alternative safe passage for pedestrians. |

Lifting

Safe Lorry Loader Crane Operations

Information Sheet

April 2016

This information sheet deals with the set-up, use, maintenance and thorough examination of lorry loader cranes (LLCs), also known as lorry loaders, to make sure that lifting operations are carried out safely. It is aimed at employers, the self-employed, employees and anyone who works with LLCs which are used for operations involving lifting of smaller loads such as building materials, (blocks, timber, bags, logs), small containers, general waste, etc. It **does not** cover loader cranes operating with rope and winch systems, or where they are being used as an alternative to conventional mobile cranes, or situations involving the lifting of persons.



All lifting operations are potentially hazardous and should be planned to make sure that they are carried out safely and that all foreseeable risks have been taken into account and effectively controlled. Poor planning is one of the major causes of accidents arising from lifting operations.

What is an LLO

An LLC is a crane mounted on a vehicle for the purpose of loading and unloading that vehicle. In construction and utility works LLCs are used widely for loading and unloading and are commonly fitted with **clam-shell bucket or grab attachments**. In general transport and haulage they can be used with a crane hook and lifting accessories. A crane should only be mounted to a vehicle in accordance with the vehicle manufacturer's bodybuilding guidelines by a person competent to do so.

Training Requirements

LLCs must be operated by trained competent persons. A person is deemed to be competent if they are trained and experienced, and know how to safely carry out LLC operations, having regard to the nature of the hazards involved.

Training should cover, as a minimum:

- the controls,
- instruments,
- working load limits,
- load assessments and load charts,
- safe working procedures for slinging and lifting, including hand-signals,
- operating limitations of each type of crane and accessory they operate, and
- in-service checks.

Documented procedures must also be followed for maintenance and use of the crane.

What causes LLO accidents

The most common causes of LLC accidents are:

- Vehicle instability caused by overloading
- Partial or complete loss of load through:
 - incorrect handling methods, and
 - lifting of loads in excess of lifting capacity of the loader crane.
- Failure of the crane, attachment or lifting accessories

Thank you
www.vehiclesatwork.ie
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