

www.trailersafetysystems.co.uk

Transport Safety - Falls from Vehicle Height

Mark McVeigh Sales and Marketing Manager The Northern Trailer Company Ltd



Introduction

Over the years the Transport industry has experienced significant challenges with working safely from vehicle height. After numerous campaigns carried out by the Health and Safety Executive (HSE) and other well known safety organisation it is still one of the largest contributors for accidents within the transport industry.

Presentation

The following presentation will provide both accident statistics published by the HSE and details of existing safety equipment available including the new to market Safety System which The Northern Trailer Company believe could be the solution.

Contents

- Falls from Height
- HSE Involvement and Guidelines
- Existing Safety Solutions
- Introducing the Newest Solution









Falls from Height

What is falls from height and who does it impact?

It is estimated that more than a million British businesses and 10 million workers carry out job tasks that involve some sort of working at height each year. Falls from height is among the most common cause of fatalities and accounts for nearly three in 10 (29%) fatal injuries to workers.

Common causes of working at height fatalities and major injuries include falls from ladders and falls through fragile surfaces, and other causes such as falls from vehicles.

What do the HSE define as Falling from Height?



The HSE's definition of working at height is: "...any place where, if there were no precautions in place, a person could fall a distance liable to cause personal injury."



What are the current Health & Safety challenges within the transport industry?

In 2007, The HSE launched the 'Falls From Vehicles' campaign aiming to reduce the numbers of injuries and deaths caused by falls from vehicles across all industries, which costs British businesses nearly £37 million in human and economic costs

Falls from Vehicles are among the most common accidents involving workplace accidents, resulting in over 25,000 reportable accidents every year

Approximately 2000 workers are seriously injured and on average 5 lose their lives across all industries every year as a result of falling from a vehicle.

Approximately three-quarters of those injured are delivery drivers. However, in construction 70% of all falls from vehicle injuries occur to non-drivers i.e. those who are involved in unloading delivery vehicles

In construction falls from vehicles occur mostly when workers/operatives are working on, loading/unloading the vehicle, and getting on or off.







NORTHERN TRAILER COMPAN

Falls from Height

ww.trailersafetysystems.co.uk

Falls from Height

Examples of Falling from Vehicle Height





Falls from Height

Examples of Falling from Vehicle Height







HSE Involvement and Guidelines

Guidance on avoiding falls from workplace vehicles

HSE Guidance

Over recent years there have been large scale campaigns launched by the HSE and a number of safety organisations across industries aiming to reduce the high number of Falls from vehicles in the workplace

Falls from vehicles in the workplace are caused by a number of hazardous activities. Climbing on loads, slippery surfaces, uneven ladders or walkways or using inappropriate parts of the vehicle as support are among the more common causes.

Employers have legal duties to try to prevent falls, and should consider the following advice.



*all content published by the HSE, can be found on the HSE website

HSE Guidance

1. Access on to vehicles should be restricted to those people who have to do so:

- Consider controls that are accessible from the ground to stop drivers climbing on top of vehicles.
- Permanent loading stations with fixed platforms
- Harness system to protect people working at height

2. Where people have to gain access to the top of a vehicle access should be via a well-constructed ladder. Ladders should:

- Be placed on the front or back of the vehicle
- Be of sound construction, properly maintained and securely fixed.
- Be vertical or slope inwards towards the top if possible.
- Rungs should be horizontal and give plenty of toe or foothold.

3. Wherever possible, walkways should be used. Walkways should:

- Be made of non-slip grating or another non-slip material.
- Top and middle guardrails may be needed, for protecting people working standing or crouching.
- Collapsible handrails are an option to be considered



HSE Involvement and Guidelines

Which other factors could H&S impact in your business ?

Increasing fines by the HSE

- The death of a lorry driver in a 2m fall off a loaded vehicle cost haulage firm TNT Logistics (CEVA) almost £150,000 in fines and costs.
- Warburtons fined £2million after worker fell whilst cleaning one of the mixing machines when he lost his footing and fell nearly two-meters.

Criminal Sentencing

 Individuals can also be tried for breaches of health and safety regulations and can receive an unlimited fine and up to two years' imprisonment.

The list goes on.....











Existing Safety Systems

What Health & Safety systems are currently available ?



	Curtain and Net Sides	Soft Landing Systems	Fall Arrest Gantry System	Platform Gantry System			
Overview	Curtain sides or net sides can be fitted to flat bed trailers and are a lightweight equivalent to 'drop sides'. They can be retrospectively fitted. Curtain sides are easy to install and operate and require minimum training in their use.	The Soft Landing System is a form of collective protection and although it does not eliminate the driver/operator from falling from the bed of the trailer, it is designed to catch the person and act as a 'crash mat' to reduce the likelihood of injury from an impact with the ground.	The Fall Arrest Gantry consists of a substantial steel structure to which a fall arrest block is mounted via an overhead rail system. The person accessing the vehicle wears a harness and connects up to the cable of the fall arrest block.	The Platform Gantry system comes in the form of a deployable or fixed platform that will reduce the severity of injury should a person trip and fall whilst on the bed of his vehicle. This is due to the distance of the fall being greatly reduced.			
Advantages	 Low cost and retrospective fitment available. Due to lightweight is easily used and operated and requires minimum training. Curtain sides are easy to install and operate and require minimum training in their use. 	 Can be used at building sites, collection sites and builders' yards. Low cost and minimum maintenance required. Waterproof and flame-retardant. 	 Can be used with different sizes of vehicles and different load configurations. Good level of visual compliance. Offers operators the ability to access the trailer bed without the risk of falling from height. 	 Allows drivers to both net and strap the load generally without the risk of falling Allows drivers to view the load from above as opposed to from ground level. Can be operated by either manually or via a hydraulic mechanism (drive through) Allows easy access to the trailer bed 			
Disadvantages	 Does not offer any protection to the restraint of the load (not rated to BS std). If Load swing occurs then can trap the operator or result in tipping a person head first to the ground Additional load restraints will be required to comply with the DfT Code of Practice. 	 Due to the bulkiness of the bags it is not a practical option to transport Unsuitable for fork lift operations A large number of the bags are required to fit together to offer protection A safe path to access the trailer is restricted due to the width of the bags. 	 Costly to install. Requires a large area to use ,causing congestion at peak collection times Only provides protection at the site Requires individuals to be trained The fall arrest block and harnesses required regular inspections and tests. 	 Costly to install. Requires a fairly large area to use, causing congestion at peak collection times. Needs to be configured for each load. Can only be used on even surfaces and ground conditions unlike most sites No prevention from falls from the rear 			

What Health & Safety systems are currently available ?

Curtain, Strap and Net Sides

Curtain sides, Straps or Net sides can be fitted to flat bed trailers and are a lightweight equivalent to 'drop sides'. They can be retrospectively fitted. Curtain sides are easy to install and operate and require minimum training in their use.

Advantages

- Low cost and retrospective fitment available.
- Due to lightweight is easily used and operated and requires minimum training.
- Easy to install and operate and require minimum training in their use.

- Does not offer any protection to the restraint of the load (not to BS std).
- If Load swing occurs then can trap the operator or result in tipping a person head first to the ground
- Additional load restraints will be required to comply with the DFT Code of Practice.





What Health & Safety systems are currently available ?

Soft Landing Systems

The Soft Landing System is a form of collective protection and although it does not eliminate the driver/operator from falling from the bed of the trailer, it is designed to catch the person and act as a 'crash mat' to reduce the likelihood of injury from an impact with the ground.

Advantages

- Can be used at building sites, collection sites and builders' yards.
- Low cost and minimum maintenance required.
- Waterproof and flame-retardant.

- Due to the bulkiness of the bags it is not a practical option to transport
- Unsuitable for fork lift operations
- A large number of the bags are required to fit together to offer protection
- A safe path to access the trailer is restricted due to the width of the bags.
- Any falls can still cause injury and will be reported as an accident





What Health & Safety systems are currently available ?

Fall Arrest Gantry System

The Fall Arrest Gantry consists of a substantial steel structure to which a fall arrest block is mounted via an overhead rail system. The person accessing the vehicle wears a harness and connects up to the cable of the fall arrest block.

Advantages

- Can be used with different sizes of vehicles and different load configurations.
- Good level of visual compliance.
- Offers operators the ability to access the trailer bed without the risk of falling from height.

- Costly to install.
- Requires a large area to use ,causing congestion at peak collection times
- Only provides protection on site
- The fall arrest block and harnesses required regular inspections and tests





What Health & Safety systems are currently available ?

Access Platform System

The Access Platform system comes in the form of a deployable or fixed platform that will reduce the severity of injury should a person trip and fall whilst on the bed of his vehicle. This is due to the distance of the fall being greatly reduced.

Advantages

- Allows drivers to both net and strap the load generally without the risk of falling
- Allows drivers to view the load from above as opposed to from ground level.
- Can be operated by either manually or via a hydraulic mechanism (drive through)
- Allows easy access to the trailer bed

- Costly to install.
- Requires a fairly large area to use, causing congestion at peak collection times.
- Needs to be configured for each load.
- Can only be used on even surfaces and ground conditions unlike most sites
- No prevention from falls from the rear













Introducing the NTC - PATHFINDER Flatbed Safety System

Reshaping Flatbed Safety

Here at The Northern Trailer Company we have taken a step into reducing the ongoing high numbers of falls from height within the transport industry.

The NTC Pathfinder is a patented trailer safety system, which deployed in approximately 5 minutes provides your workforce with a safe, level and effective edge protection walkway system for flatbed trailers and rigid vehicles.

Our unique safety system provides users with a practical, effective and time efficient solution to everyday loading and unloading without the need to reduce load size.

Unlike other safety systems on the market such as soft landing bags, clamping or fall arrest systems, as the NTC Pathfinder is a fitted system this means there is no need to transport parts for assembly, eliminating the risk of key parts being lost or misplaced. Side rails also drop down providing access for fork lift loading and unloading, another unique feature that makes the NTC Pathfinder ideal for all your transportation needs.

NTC-Pathfinder System

How does the system work ?

Unrivalled Safety & Quality

The Northern Trailer Company have the solution created the patented NTC Pathfinder' gantry system, to reduce the likelihood of injury either by falling from the vehicle or by being trapped between the load and the fabric of the vehicle.

Drivers climbing directly onto trailer decks during either loading or unloading without an effective edge protection system could contravene the following:

HSE WORKING AT HEIGHT REGULATIONS 2005

6 (3) Where work is carried out at height, every employer shall take suitable and sufficient measures to prevent, so far as is reasonably practicable, any person falling a distance liable to cause

personal injury.

Providing an access walkway, integral with the trailer and fitted with an external handrail significantly

reduces this risk.

Full deployment takes one person no more than 5 minutes.

To deploy the walkway...



1. THE HANDRAIL IS RELEASED FROM IT'S BOLTED LOCATION AND SWINGS OUTWARDS TO FORM THE GANTRY SUPPORT.



2. TREAD PANELS ARE UNLOCKED AND LOWERED ONTO THE GANTRY.



3. KICKBOARDS ARE THEN LIFTED AND LOCKED IN TO POSITION TO COMPLETE DEPLOYMENT.





1. THE HANDRAIL IS RELEASED FROM IT'S GANTRY SUPPORTS AND SWINGS DOWNWARDS PARALLEL TO THE TRAILER SIDE



2. TREAD PANELS ARE UNLOCKED AND LOWERED TO SUIT, PROVIDING FORKLIFT ACCESS.







NTC-Pathfinder System

Demonstration Video



NTC-Pathfinder System

Demonstration Images





NTC-Pathfinder System

What benefits does the NTC-Pathfinder provide to the transport industry ?

- Additional Walkway Separate walkway to allow free working space from a safe distance, level with flatbed
- Eliminate the risk of falling all together Fall Protection versus Fall arrest
- Simple assembly No requirement for tools e.g. hammers, clamps
- No need to transport parts such as bean bags, clamps & tools
- Eliminate the risk of leaving / losing key parts of the system
- Efficient and simple set up approx. 5 mins vs other 20-30min systems
- Robust and permanently fitted for the vehicle lifetime
- Multi delivery access Allows loads to be delivered to any site
- Responsibility owned by you rather than your customers possibly improving tender strength
- Protection for both operator and load reducing not only falls but offer an element of protection to load spills causing injury while loading / unloading and during transportation





NTC-Pathfinder System

What does the NTC Pathfinder provide vs Existing Safety Systems?

NTC Pathfinder

- No Transport or supply required
- Own fork lift operations set up
- Full set up taking under 5 minutes
- Full secure, level walkway around load
- Provides a safe & separate workspace
- Fall prevention system rather than fall arrest
- Requires no additional site space
- No configuration as always level to bed
- Can be used anywhere that vehicle goes
- Full prevention all around flatbed
- Provides protection at all times
- Offers an element of load restraint to railing restraints (posts tbc for load test)

Existing System Disadvantages

- Transport or supplied by site
- Unsuitable for fork lift operations
- Lengthy set up times
- No safe path to access the load
- Some types can increase severity of fall
- Fall arrest still cause injury and are reportable accidents
- Requires a large area to use
- Needs to be configured for each load.
- Can only be used on even surfaces
- No prevention from falls from the rear
- Only provides on site protection
- Does not offer any load restraint (BS) std)







NTC-Pathfinder System

Example of how the NTC Pathfinder can improve Risk Assessments

	TASK LOADING & UNLOADING OF STEELSTOCK FOR DELIVERY - Company Name															
		Location				Project title		Refers to NTC Pathfinder Walkway system								
		Person supervisin	g work	Structural/Prep Manager			Employer		Company		_	_	Mandatory			
		Persons exposed	Y	Employees New/expectant mothers	Y	Other workers	+	Public/visitors		Others		Estimated total number of		3		Guidance Project Specific
DDA	ET	(one poor)		receives possion monitoria		A real side service. They are interested		roung perso	*18 <u> </u>			persons at this				Projour opound
DRA	IF I									_					_	
2	Falls fr Grains fr Falls fr Grains fr dimbir	ading/unloading onto Pathfinder Walkway S, SLIPS & TRIPS from vehicle cabs from flat bed of long v rout steel loaded on from edge of long wh ag on or off it	with it	Serious injury or fatality falling from height Lorry driver falling from t trailer	through cab or	 (1) At the site all loading/unloi managed by companies k forkilt/side k (2) Drivers wear jippes: Hi-Vis safety boots hat/bump ca (3) Cab has foxe to allow safe egress from In addition, at su customer sites: (5) Drivers report office. (6) Drivers sign may be ask agreement i site to eithe vehicle cab canteen wh loading/unloi taking place (7) Drivers stay suitable are canteen) wi unloading is and await p from site for loader drive back it. 	ading is the ader drive PPE at al jacket, and hard p. d handhol access ar cab. oplier / or to main register a ed to sign issued by i r stay in or in site ist vading is in cab oth a (such as nilst loadin, taking is ermission klift/side r to return.	ers. I, ds nd an the 3 eer g/ ioe	5	15	Ν	Required Strategy (1) Lorry drivers use steps installed into trailer ONLY to safely climb on/off TSS Pathfinder Walkway system. (2) Lorry drivers get off trailer and stay clear of it during loading and unloading operations. (3) TSS Pathfinder flatbed trailer has walkway system deployed, together with fixed, purpose built ad supplied steps to allow safe access to, and egress from the flat bed.	2	1	2	Transport Manager



NTC Custom Corner



You tell us what you want

- Choice of powder coating to suit your company colours
- 1 or 2 sided option available
- Special rates for fleets available
- Fitting options (Retro or standard fitted)
- Optional extras
 - Tethering lines (including 4 corner posts & winch line
 - Telescopic posts up to 2 meters in height
 - Range of portable ladder or steps that can slot into grated mesh providing additional reach on walkway



Thank You !

For more information please visit our website <u>www.trailersafetysystems.co.uk</u> or contact us on:

- Phone 01698 720710 / 07739 363204
 - Email <u>Mark@trailersafetysystems.co.uk</u>
- Visit Whistleberry Industrial Estate, Hamilton, ML30ED

Any Questions ?



Find us on Social Media @The Northern Trailer Company Ltd