Loading dock safety guide

iosh
Retail and
Distribution Group

FTA

Edition 2 • May 2013

Delivering safe, efficient, sustainable logistics

FREIGHT TRANSPORT ASSOCIATION

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Contents

Introduction

This publication has been produced by the Freight Transport Association (FTA) Logistics Safety Working Group and the Institution of Occupational Safety and Health (IOSH) Retail and Distribution Group. It aims to identify the risks associated with vehicle/dock interface for the logistics sector and explore possible control measures.

Loading docks present a number of significant risks which require careful management. Differing specifications for docks and vehicles, visiting drivers and the lack of direct communication between drivers and warehouse staff all contribute to potential problems. This guide focuses on warehouse-type locations and should be read by anyone responsible for managing these sites. It aims to highlight risk areas and to consider possible solutions adopted by others in the sector.

We would like to thank the following for their help in producing this guide: The FTA Logistics Safety Working Group, the IOSH Retail and Distribution Group, Arla Foods, ASDA stores Ltd, Castell-Salvo, Coca Cola, Premier Foods, Sainsbury's, Tesco, Walkers Snack Foods and Don-Bur.

The FTA Logistic Safety Working Group is made up of transport and safety professionals from a diverse range of sectors, including retail, third party logistics, parcels and couriers, waste and utilities. Its objective is to reduce the number of work-related deaths, injuries and ill-health in the logistics sector and key work includes:

- identifying, measuring and benchmarking logistics safety performance measures
- identifying issues
- sharing good practice

The group have actively fed into the Health and Safety Executive's (HSE) work, including the red tape challenge, review of fork lift truck guidance and proposals to introduce cost recovery for enforcement, as well as helping to shape the content and direction of the emerging HSE ports and logistics strategy.

Find out more at www.fta.co.uk

The IOSH Retail and Distribution Group has over 1,200 members working in retail, warehousing, road transport, distribution, catering as well as premise design and refit. This guidance document was developed from a work stream initiated by the Warehouse Safety Forum (WSF) formerly an HSE working party, which was transferred to IOSH and has been a sub-group of the IOSH Retail and Distribution Group since the publication of the HSE guide *Warehousing and storage: a guide to health and safety (HSG76)*, for which the WSF was created. The group brings together members facing the specific issues presented by this sector – from a workforce that typically includes language barriers, different skill levels, working hours and conditions, to the challenge of maintaining safety levels in a largely customer dominated environment. The group:

- stages interesting and informative networking events
- develops online webinars on current topics
- offers a communication channel for members wanting to take part in consultations on legislation and matters affecting the industry
- gives a focus for collaborative working with other industry safety forums and organisations

Find out more at www.iosh.co.uk/retailanddistributiongroup

Risks

According to the Health and Safety Executive (HSE), the transport and storage sector has a considerably higher rate of injury than the GB average and has the second highest rate of total injuries.

Risk assessment

The Management of Health and Safety at Work Regulations 1999 require every employer and self-employed person to make a suitable and sufficient assessment of the health and safety risks to employees and others to which their undertakings give rise. If five or more people are employed, the findings of the risk assessment must be in writing.

Not only are risk assessments legally required, they are also fundamental to help employers comply with other legal duties – such as ensuring as far as is reasonably practicable the health, safety and welfare of their employees at work as well as their duty of care to site visitors. They should be carried out by someone competent to do so.

The Health and Safety Executive (HSE) booklet *Five steps to risk assessment* can be downloaded at www.hse.gov.uk and is a useful starting point to assessing the risks of your loading dock operations.

Often, especially in larger depots, goods-in and goods-out operations are quite different in terms of personnel and processes. For example, vehicles to be unloaded (goods-in) may well be driven onto the loading bay by a visiting driver, who will also drive the vehicle off the bay when it has been unloaded. Visiting drivers may experience different safety controls at different depots and could become confused. The tractor unit of an articulated combination may remain coupled to the trailer whilst it is loaded. On the other hand, goods to be moved out of the site are often driven on and off bays by employed shunter drivers and trailers are loaded whilst uncoupled from a tractor unit. Where operations have significantly different characteristics, it may be better to risk assess these separately.

Key loading dock hazards

Clearly, there are many potential hazards at any workplace and these must be assessed and addressed. Also warehouses and workplace transport sites have particular hazards, such as manual handling, operation of fork lift trucks, reversing of vehicles and the need to segregate vehicles from pedestrians. However, there is already a wealth of existing guidance on these issues at www.hse.gov.uk and members of FTA can contact the Member Advice Centre on 0870 60 50 000 for advice. We have included a copy of the HSE Site Inspection checklist in Annex 3, which outlines the key areas and includes the relevant reference documents. An area of common concern is semi-trailer coupling and uncoupling procedures and the need to ensure trailer parking brakes are applied appropriately and existing guidance can be accessed via the HSE website. Also, at the time of writing, FTA is working with other stakeholders to produce a specific guide on this subject. Visit www.fta.co.uk for more information.

This guide has chosen instead to concentrate on the particular hazards posed by the interface between the warehouse and the vehicle (the loading dock). These hazards are specific to loading docks and we are not aware of any existing industry guidance in this area. Most of them also create significant risks to those loading or unloading the vehicle and if not properly mitigated could result in major injuries or even death.

The following are the key loading dock hazards explored in this guide.

- Drive-away
- Vehicle creep
- Load roll-away
- Trailer tip
- Water ingress

Definitions

DRIVE-AWAY

A drive-away is when a vehicle or trailer is moved away from the loading bay too early, before the loading/unloading operation is complete. The vehicle loader, machinery or goods can fall from the vehicle, posing a danger to the loader or anyone working in the vicinity.

VEHICLE CREEP

Vehicles can move (or creep) away from the edge of the loading bay as loading equipment jolts the vehicle or compresses its suspension when moving between the bay platform and the vehicle. This can widen the gap between the bay and the vehicle and cause the dock plate/leveller, which provides a platform between them, to suddenly slip. The vehicle loader, machinery or goods can fall from the vehicle, posing a

danger to the loader and anyone working in the vicinity. This can occur even if the trailer has its park brake applied, due to the vehicle rocking on its suspension.

Vehicle creep can also occur if the trailer landing leg area of the yard is uneven or is deteriorating, causing the trailer foot to rock forward when loads are transferred into/out of the back of the trailer.

Vehicle creep can be exacerbated when:

- there is a difference between the height of the vehicle bed and the height of the loading dock
- differences in positioning and thickness between the buffers on the dock and those on the vehicle/trailer mean that the gap between the vehicle/trailer and dock can vary
- the vehicle/trailer is backed too close to the loading bay causing buffers to compress and the vehicle/trailer to be temporarily wedged in position. The 'bouncing' motion caused by the loading/unloading operation can then lead to a sudden drop in vehicle trailer height
- freight containers are backed onto a dock and inadvertently sit on top of buffers (due to the significant height difference on a skeletal trailer). The container can then break away during loading/unloading, resulting in a sudden drop

LOAD ROLL-AWAY

The height of vehicle load platforms can vary significantly as can the height of loading docks. Individual vehicle's height can change according to whether it is empty or full and be affected by tyre pressure or suspension. With double-deck trailers, there can be a difference in height when loading the top or bottom deck. A steep incline, either on the dock plate or within the trailer, can cause goods loaded on wheeled equipment (such as those in cages or dollies) to roll either into or out of the vehicle.

TRAILER TIP

When a trailer is uncoupled from the tractor unit and the landing legs lowered, the trailer can be prone to tipping forward from the landing legs if too much weight is placed towards the front of the trailer. This can be caused by a heavy load or the use of heavy equipment, such as a fork lift truck, within the trailer.

WATER INGRESS

Water entering the dock loading area can create a slip hazard for both pedestrians and those using mechanical equipment. Most loading bays have canopies, curtains or shelters to create a weather shield. However, this may be compromised by ill fitting seals or different vehicle and trailer designs, such as trailers designed to improve aerodynamics. The sloping design may mean that water will naturally run backwards into the loading area. However, some trailer manufacturers have designed out this problem by way of rainwater diverter systems such as rainwater deflectors or gutters.

Summary of key loading dock hazards

Loading dock hazard	Who can be harmed and how
Drive-away	Vehicle loader or others working on or near vehicle – falling from vehicle or dock or being hit by machinery or load falling from vehicle or dock
Vehicle creep	
Load roll-away	Vehicle loader or others working on or near vehicle – being struck by goods loaded on wheeled equipment rolling into or out of the vehicle
Trailer tip	Vehicle loader or others working on or near vehicle – falling from vehicle or dock or being hit by machinery or load falling from vehicle or dock
Water ingress	Warehouse staff – creates a slip hazard

Control measures

Once hazards have been suitably identified and the level of risk assessed, legislation requires control measures to be put in place to deal with them. This document identifies some common industry control measures for the key hazards identified in section one. Some control measures can help mitigate more than one hazard – for example the use of wheel chocks can mitigate both drive-aways and vehicle creep, and this is reflected within this chapter.

Control measures should never be considered a one-size-fits-all solution. Different control measures will suit different operations. Many organisations have a combination of the measures outlined in this chapter and most have adapted them to suit their own organisational needs and processes. Whatever measures are used, they will need to form part of a safe system of working that includes reasonably practicable controls. More information on introducing and managing control measures can be found on page 11.

Drive-away control measures

Signals, signs and barriers

Signals, such as red/green traffic lights are commonly used at loading bays to indicate when it is safe (green) or not safe (red) to move a vehicle. They are generally positioned on the side of the dock door that the driver will be on, once the vehicle has been reversed onto the dock.

Indicator lights inside the warehouse at each loading bay are often used in conjunction with these to inform warehouse staff that the external traffic lights are set to red and that it is safe to open the loading bay doors. These systems generally require the driver to activate the light once the vehicle/trailer is positioned on the dock, which indicates to those in the warehouse that it is safe to open the door to commence loading/unloading. This process is reversed when the vehicle/trailer is ready to be driven off the bay – the warehouse staff activate the mechanism that changes the warehouse indicator and turns the outside traffic light to green. When designing systems with lights, it should be remembered that glare from sunlight can significantly affect their visibility and so they should be positioned carefully and shaded or shrouded to increase their effectiveness.

LED lights can improve visibility and be less vulnerable to breakdown. Also a directional indicator (an arrow) can help to remind drivers which dock the light relates to. This is especially helpful for drivers of left-hand drive vehicles.

Other types of manual sign and barrier can also be used to show when a vehicle can be driven on and off a loading bay. For example, a steering wheel cover or a stop sign or barrier that is at the right height to be seen by the driver. These rely on robust procedures to ensure they are always used, and workers positioning such signs or barriers could be put at risk. For example, it may be necessary to control the movements of other vehicles in adjacent bays while signs are being put in place or removed.

Although signal, sign and barrier systems can be effective, most do not actually prevent a vehicle from moving away and so rely entirely on operatives following the signals and, of course, the signals working correctly. This can be more difficult to manage when dealing with visiting drivers, and especially those whose first language may not be English.

Key control

Key control systems are most commonly found in goods-in operations – where semi-trailers (which usually remain coupled to tractor unit) or rigid vehicles are unloaded at a depot.

Visiting drivers (whether employed by suppliers or subcontractors or other parts of the occupiers' organisation) are asked to hand over their ignition keys whilst the vehicle is being unloaded. These systems are often used in conjunction with other control measures, such as traffic light signals and can range from the relatively simple locked cupboard, to a more sophisticated system that is linked automatically to the loading bay doors. Automatic systems use electronic fobs placed within a panel, which unless activated when the vehicle's keys are attached, will not allow the particular bay door to be opened. Similarly, when the loading bay door is open, the fob cannot be removed from the panel. An example of a detailed safe system of work for this type of key control can be found in the Annex: Tools chapter at the end of this guide.

Other key control systems attach the vehicle keys to a hook on a wire on the back of the loading door. These wires pull the keys out of reach when the loading bay door is open.

Where possible, it is preferable for visiting drivers to be away from the vehicles whilst they are being loaded and only permitted back into them once it is safe to do so. Some organisations only allow their own shunter drivers to back onto and off loading bays, asking visiting drivers to drop trailers or vehicles in designated parking areas. However, in these cases, visiting drivers should be provided with a safe waiting area, to ensure they are not put at risk as pedestrians on a busy site. Similarly, where drivers need to observe loading, they will need a safe place to do this.

Key control systems rely on drivers having only one set of keys (or handing in all sets they have on them), so safe systems of work should include asking the drivers if they carry any spares, and if so, handing these in too.

Trailer airline locking systems

Uncoupled semi-trailers present another opportunity to prevent drive-ways by preventing the trailer brake coupling (known as the suzie) from being attached to a tractor unit or shunter.

When the brake line is uncoupled, fail-safe brakes are applied to the trailer (note that these brakes should always be used in conjunction with applied trailer parking brakes to prevent the trailer moving). By locking the trailer brake coupling, the trailer cannot be coupled up to a motor vehicle and moved.

Cautionary note!

If a vehicle is equipped with an Electronic Braking System (EBS) it is possible under certain conditions that disconnecting the emergency (red) airline will NOT activate the fail-safe brakes on the trailer. It is therefore possible under certain conditions for a vehicle and trailer combination to be moved with the airline couplings disconnected which is extremely dangerous. All airlines and electrical suzies must be correctly connected before before moving a tractor and trailer combination.

Also, as mentioned previously, it is essential that parking brakes are applied when coupling and uncoupling trailers.

There are various methods of achieving this, such as a padlock placed over the connection as well as purpose-built attachments.

The key to the airline lock is then controlled by being put in a safe position, which is usually connected with the loading bay door operation. For example, purpose-built systems use the airline-lock key to energise the loading bay door – it will not open without the key being in position.

Other systems have a tube connection built into the wall of the loading dock, so the padlock key can be attached to a hook on a wire that is lifted out of reach when the loading bay door is opened.

Loading bay door locking systems

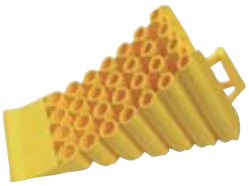
Many of the control measures described in this section can operate in conjunction with an automated or manually-operated loading bay door system.

Doors are typically locked when signals are on red, ignition keys have not been handed over, or semi-trailer airlines are not locked.

Proximity detectors and sensors, cameras and audible warnings can also be integrated with loading bay systems.

Drive-away and vehicle creep control measures

Chocks and other restraints



A simple and cost-effective way to prevent a vehicle moving is to place large wedges of hard material, or chocks, against the wheels to prevent the vehicle moving.

Most wheel chock systems rely on the placing of individual chocks against the wheels of the vehicle or trailer. Chocks need to be suitable for the type of vehicle they are expected to restrain and can also be affected by the type of surface it is being used on, as well as the weather conditions.

A robust safe system of work covering the use of wheel chocks is important, as workers who put them in place and remove them can potentially be at risk if working where there are moving vehicles. It may be necessary to control the movements of other vehicles in adjacent bays while chocks are put in place or removed. Supervision and monitoring of their use can also be difficult. Because loading bays are often positioned closely together, it can be difficult to easily verify if chocks are in place. For this reason, they are often brightly coloured, and the use of mirrors or cameras can assist.

Automatic wheel chock systems are available that can be built into the dock approach at ground level. They can be operated automatically and thus remove the need for workers to manually place and remove chocks. They need to be used in conjunction with a robust system to ensure they are activated and de-activated at the appropriate time. Most automatic wheel chocks usually work in conjunction with dock traffic light systems.

Integrated wheel chocks can also be fitted with sensors that communicate with and activate loading dock bay doors.

Other restraint systems are also available, such as those which clamp on to a part of the vehicle, such as the rear under-run bar. These can be mechanically or hydraulically operated and also are often used in conjunction with traffic light systems.

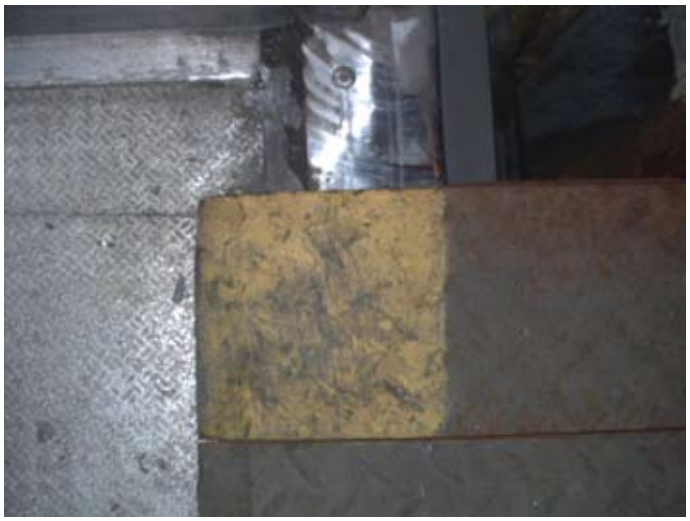
However, without a system to ensure the vehicle is not moved when restrained, some vehicles simply rip less robust restraints out of their moorings or alternatively cause significant damage to the vehicle. Also these systems may not be suitable for all vehicle or trailer types – for example double-decked trailers.

Vehicle creep control measures

Dock plate markings

The plate that forms a bridge between the vehicle bed and the loading bay provides an overlap that should be able to allow for a certain amount of vehicle creep, without the plate falling and causing a risk of injury. The larger the overlap, the more vehicle movement can be incorporated. However, you need to consider how far back the vehicle is to be loaded.

Many organisations use a simple marking system to show the minimum amount of plate that must be within the vehicle and/or dock to allow for the maximum expected movement. This is commonly marked at around 150mm depth. As this relies on workers following a system, it needs to be closely monitored. Also these markings must be properly maintained, as they can be subject to heavy wear.



Buffer specification

Trailers/vehicles and docks may be fitted with buffers to protect them from damage on contact. The placement of these in terms of height from the ground and the distance between them can vary considerably and there are no standard industry placement points. This results in the in the trailer and dock buffers sometimes meeting and sometimes not, which can vary the potential gap between the vehicle and the loading bay. Standardisation of these placement points across an operation may help to reduce the problem of slipping dock plates. Standardisation may be more likely to be viable where the transport is carried out in-house or by a small number of providers and could be carried out through a planned programme of work over a period of time. There is an example of a standard survey that can help to identify existing placements in the tools section of this guide.

Buffers can be made of various material, but are generally either soft (compressible) or solid. If buffers are compressible and vehicles/trailers driven too close to the loading dock, the trailer/vehicle may be temporarily held into position because of the friction between the compressed buffers and the dock/trailer. The 'bouncing' motion caused by the loading operation can then lead to a sudden drop in vehicle trailer height. The use of solid buffers may reduce this risk, but can also lessen protection from damage. Where soft buffers are used, drivers should be given clear instructions to ensure this issue is avoided.

Automatically adjusting buffers are available, although these can be expensive and require additional maintenance, as are roller buffers that allow the trailer to settle and avoid sudden drops.

Dock approach maintenance

To maximise vehicle and trailer stability, the ground on the approach to the dock should be maintained so that it is even and any potholes created by landing leg wear or the weather should be quickly repaired. A regular site inspection should be carried out (this is included in the HSE site inspection checklist shown in the tools section of this publication), alongside an effective process of reporting problems as they occur.

Vehicle creep and load roll-away control measures

Dock and vehicle/trailer specification

Minimising the height difference between the loading bed of the vehicle/trailer and dock, where possible, will contribute to reducing the risk of vehicle creep and load roll-away.

Standardisation of these across an operation, however, may only be practicable where the transport is carried out in-house or by a small number of providers. It also may take a number of years to address, where existing locations and vehicles are already in use. A useful starting point may be to carry out a

survey of your locations and your vehicles, as well as your main suppliers/visitors. An example survey (which includes requests for information on buffer heights) can be found in the annex tools section of this guide. This will also help to identify the most appropriate allocation of vehicle/trailer to loading bay, where different height bays are available at the same location, or where it is possible to designate specified vehicles to appropriate sights.

Where new depots are being planned or new vehicles/trailer acquired, make sure that loading dock safety issues, and in particular loading bed/loading bay compatibility, are considered within the procurement process.

FTA's publication *Designing for deliveries* is a guide for planners and engineers to assist in designing service areas and access roads for commercial vehicles. Available as a book or CD CAD templates, it incorporates scaled drawings (1:500 or 1:200) and guidance on how to cater for all vehicles – small rigid, large rigid, artic and drawbar – to avoid extremes, but at the same time ensure layouts will work. Visit www.shopfta.co.uk for more information.

When specifying new vehicles, it is essential that the whole vehicle operation is considered – from loading to offloading – rather than just the on-road needs.

Dock levellers

Dock levellers bridge the gap between the vehicle/trailer and the loading bay and act as a ramp when there is a height difference between the two. They can take many forms and can adjust their gradient either mechanically or hydraulically.

According to HSE, it is better to have the bay platform slightly lower than the vehicle platform because someone inside a vehicle or trailer will have less ability to avoid a moving run-away load than those in the warehouse.

The greater the difference between the dock height and the vehicle/trailer load height, the more sophisticated the dock levelling solution will need to be. Managing the allocation of vehicle/trailer to the most appropriate loading bay will help to mitigate this, where there are different height bays available.

The maximum gradient that a loaded truck can work on should also be considered. For each type of truck this depends on a number of factors, such as the type of power (electric, internal combustion etc), size of wheels, power output, wet or dry conditions etc. To this end the mechanical handling equipment manufacturers provide data sheets for each type of truck they produce showing operating gradients.

Where the height difference is too great to be accommodated by a dock leveller, or the location restricts their use, other loading/unloading options include lifts, hoists cranes and conveyors.

Trailer tip control measures

Trailer stabilisation

Firstly, to assess the risk, speak to your trailer manufacturer about your trailer's tipping movements (the forces that affect the stability of the trailer).

One approach to control this hazard is to ensure the tractor unit remains coupled to the trailer whilst the vehicle is being loaded, thus avoiding the potential 'see saw' effect about the landing legs. However, in certain circumstances this may increase the drive-away risk.

Alternatively, trailer props or trestles can be used to stabilise the trailer. A robust safe system of work covering the use of trailer props is important, as workers who put them in place and remove them may be exposed to hazards from moving vehicles on site as well as the mechanical handling and safe positioning issues.

Lighter load handling equipment

Some organisations seek to avoid the use of heavy fork lift trucks on semi-trailers not only because this removes the need for additional stabilisation, but it also protects the trailer bed from potential damage. The use of lighter ride-on pallet trucks, hand pallet trucks, roll-cages or dollies could be considered instead, depending on the nature of the load.

Water ingress control measures

Canopy/shelter/seal specification

There are a number of types of canopy, seal or shelter available for docks that aim to protect the vehicle/trailer and dock interface from the weather and in particular from water ingress, which creates the slip hazard. Good dock canopy fit will also benefit the chill chain for fresh/frozen food suppliers by helping to keep the temperature maintained within the warehouse.

Generally, the more adjustable the canopy, the better the fit. However, adjustable systems generally require more maintenance and may be more prone to damage.

Consider the type of canopy most suitable for your operations, particularly where the loading bay/vehicle or trailer fit may have changed – for example with the increased use of teardrop or double-decked trailers.

Rain water grooves on trailers

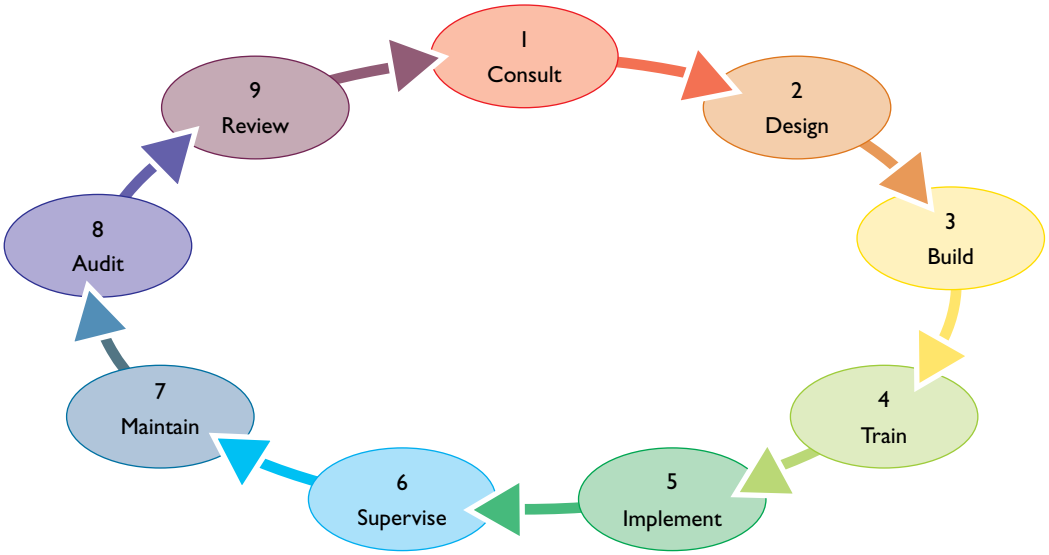
An additional measure is to ensure, where possible, trailers are fitted with rain water deflectors or gutters to divert the water off sideways and not off the rear into the dock.

Summary of control measures and issues

Hazard	Possible control measure	Possible issues
Drive-away	Signals, signs and barriers	• Prone to human error • Lights can be difficult to see when affected by glare • Potentially places workers at risk when placing and removing signs and barriers
	Key control	• Driver may have access to spare set of keys • Not suited to unaccompanied semi-trailer loading/unloading
	Semi-trailer airline locking systems	• Not suited to rigid vehicle or accompanied semi-trailer loading/unloading
	Loading bay door locking systems	• Likely to be necessary to use in conjunction with other control measure
Drive-away and vehicle creep	Chocks and other restraints	• Manual systems potentially place workers at risk when fitting and removing • Manual systems prone to human error and difficult to monitor use • Some restraints systems can cause damage to device or vehicle • Some restraint systems do not cover all vehicle/trailer types
Vehicle creep	Dock plate markings	• Prone to human error • Requires regular maintenance
	Buffer specification	• May be difficult to standardise for existing stock or visiting vehicles/trailer • Automatically adjusting buffers are expensive to fit and maintain • Solid buffers expose trailer to additional damage
	Dock approach maintenance	• Requires regular checks together with a fault reporting process
Vehicle creep and load run-away	Dock and vehicle/trailer specification	• May be difficult to standardise for existing stock or visiting vehicles/trailer
	Dock levellers	• Can be expensive and there will be limitations on the height differences that can be accommodated
Trailer tip	Trailer stabilisation	• Leaving tractor unit attached may increase the drive-away risk • Trailer props potentially place workers at risk when placing and removing them
	Lighter load handling equipment	• Lighter load handling equipment may not be suitable for all load types
Water ingress	Canopy/shelter/seal specification	• Adjustable seals may require additional maintenance and may be more exposed to damage
	Rain water grooves on trailers	• Ability to specify may be limited

Introducing and managing control measures

This section looks at the key steps that should be undertaken to implement and manage control systems, which are summarised in the process diagram below.



1 Consult

Once the risks have been formally assessed (see 'Risks' section on page 3 of this guide) it is important to consult with anyone affected by both the risks and the potential control measures. This includes loaders (usually the most at risk in the operation in terms of loading dock safety), drivers, supervisors, managers, IT teams, procurement teams and suppliers. This should help to ensure the system is not only practical but that it will be used. Make sure everyone understands why the organisation is addressing the issues and how important the success of the project is to them.

2 Design (and consult again)

Following full assessment and consultation, you should be ready to design your control measures and safe systems of work. Systems should be made as simple and intuitive as possible - the more complicated they are the less likely they are to work. Where possible the control of the system should be with the person most at risk, as they have the most incentive to do things properly. Consider if processes could be automated to remove the element of human error, but also consider what will happen if the technology or equipment breaks down. Discuss what you are trying to achieve with both vehicle and equipment suppliers, they may come up with possible solutions that you have not considered.

Make sure you continue to consult throughout this process and get full sign-off from all parties before moving to the build stage. Remember to include safe systems for the unexpected, for example the last minute addition to a load or forgotten item that has to be added before the vehicle can depart – it is often these unplanned tasks that give rise to short cuts or deviation from an agreed and trained system of work. Also consider how equipment, vehicles and infrastrucutre will be maintained, as well as the safety of those who will be carrying out the maintenance

3 Build

The build stage may take some time, so prioritise the locations or areas that pose the greatest risk. Make sure you have robust and agreed plans to mitigate any disruptions to the operations while this is taking place.

4 Train

Make sure adequate training is given to all who will need to change their way of working and that on-going instruction is available by way of posters, handbooks, procedure documents etc.

5 Implement

As with the build, implementation may need to be staged to minimise disruption.

6 Supervise

Safe systems of work should be supervised at all times, but particularly when a system is new. Any issues, including near misses, should be immediately escalated and investigated.

7 Maintain

Make sure you have identified a regular maintenance regime for equipment and machinery. Refresher training and training of new or visiting personnel on safe systems of work and how to use equipment should also be planned.

8 Audit

Regular audits carried out by someone who can do this without fear or favour to assess the ongoing compliance and suitability of the system.

9 Review

A formal review of the risk assessment and control measures in place should be planned within a set time of implementation. However, a review should also be carried out following any significant near-misses, incidents or unfavourable audit findings.

Annexes: Tools

1: Safe system of work example documents

Includes:

Reversing onto loading bays

Key control system

Shunting operations

Susie trailer lock operation

Loading

2: Dock, vehicle/trailer height and buffer position example survey

3: HSE site inspection – workplace transport checklist

Safe Working Practice

Reversing Vehicles onto Loading Bays

Why have this SWP? In 2010 most RTC's happened whilst reversing

Tools and PPE	Hi-Viz, Safety Shoes, Gloves

	Key safe behaviour/safe conditions	Notes
1	Always use safety gloves	Protects hands while completing manual handling tasks, eg opening barn doors and uncoupling
2	Always use hazard lights while reversing in yard and move at slow speed	This is to warn other yard users that you are about to reverse and slow speed reduces impact to buffers and allows greater manoeuvrability
3	Check that the Green Light is on. Never use a bay if the lights are not working	Check there are no obstructions, pedestrians in the vicinity. DO NOT reverse onto the bay if there are manoeuvring vehicles either side of your allocated bay. Do not reverse onto a bay showing a red light
4	Pull forward into correct position for reversing	
5	Open and secure barn doors, and remove number plate	
6	Re-enter the cab	Always use three points of contact entering cab
7	When safe to do so, reverse onto loading bay with offside wheels of trailer running parallel with the guidelines. This will ensure that the rear of vehicle is squarely parked onto the bay. • Drivers must reverse all the way back • Shunters must stop before making contact with the bay and lower the trailer	 Ensure clear visibility in every direction at all times, if unsure ask for assistance
8	When vehicle is located on bay apply vehicle hand brake, select neutral and switch off engine	Remember to put the trailer park brake on
9	Proceed to uncouple the unit and trailer following relevant SWPs for the type of unit you are driving	
10	Move unit forward from beneath the uncoupled trailer	
11	Collect the Salvo from the loading bay storage box	
12	Fit the Salvo onto the trailer emergency air line coupling and remove the Castell key	
13	Take the key and insert it into the Salvo light control unit and turn it, the traffic light will then turn to RED	Communication between trailers on loading bays and personnel in the warehouse via the dock door is strictly prohibited

Safe System of Work

SALVO SYSTEM – SUSIE TRAILER LOCK

PERSONAL PROTECTIVE EQUIPMENT	SAFETY WARNINGS
MANDATORY: OPTIONAL: (SITE SPECIFIC)	

REFERENCES: RA-DIST-CENT-020A (M)

Safety guidelines

The designated PPE must be worn and Safety Warnings observed at all times where appropriate.

Gloves will be made available if requested for this procedure.

Before you begin and throughout the procedure, ensure that the area you are working in is clean and tidy.

Vehicles must be parked in the designated areas specified at each site and must not obstruct any walkway.

ALWAYS be aware of pedestrians who have Right Of Way. You must STOP for them.

ENSURE that you adhere strictly to all Manual Handling techniques

Before reversing, ensure that the allocated loading bay traffic light is GREEN and that the vehicles' hazard warning lights are on. If the loading bay door is open or opens, do not proceed. NEVER reverse onto or drive away from a loading bay showing a RED or NO light unless under the directive of Logistics or Warehouse management staff.

When reversing, make sure it is safe to do so by using your mirrors and, if being assisted onto a loading bay, personnel must be in view at all times. If not, stop.

The salvo lock weighs approx 1kg. Check and ensure that the equipment you are about to use is in good working condition, If not or a fault develops, inform a member of the Logistics or Warehouse management staff. During the course of normal use, it may become dirty, greasy and slippery.

Do not un/attach the salvo system unless standing on the tractor unit platform. This ensures that the driver is protected from any moving vehicles and eliminates the requirement to unnecessarily use ladders etc to gain access to the trailer susie connectors.

Drivers must follow site protocols in the event of restricted access to the warehouse and the operation of loading bay doors and dock levellers. These will be advised upon arrival at each site by the logistics office or designated yard marshal.

Loading bay doors and dock leveller designs and operational controls vary from site to site. Do not operate unless appropriate training has been completed.

Un/loading must not commence with the tractor unit attached to the trailer.

All pre-departure checks including load integrity must be completed as directed in the driver's handbook.

Under NO circumstances must the driver attempt to move a trailer off the loading bay with a salvo lock in situ.

Sign-off to verify that briefing and practical demonstration has been given to and successfully completed by:

Trainer name (print): _____ Employee Name (print): _____

Trainer signature: _____ Employee signature: _____

Date: _____ Employee number: _____

Introduction

The Salvo loading dock safety device interlocks an articulated trailer to the loading bay ensuring 'Drive-Aways' cannot occur during loading and unloading. 'Drive-Aways' occur when vehicles prematurely move away from their designated loading bay, thereby creating a gap into which MHE can fall.

The Salvo trailer lock is a key operated mechanical locking device designed to fit onto the trailer male susie connector for the emergency brake line of all UK trailers. Its purpose is to prevent reconnection of the air brake hose, thereby immobilising the trailer when parked on a loading bay for loading or unloading. When fitted, the salvo can only be removed with a uniquely coded key. If the trailer is not locked in place, loading cannot begin. This system has now been installed at all Hovis sites.

Method

1 On arrival at a Hovis site, the driver will securely park his vehicle is the designated area, clear of any walkways and report to the logistics office. All local site protocols must be adhered to

2 The driver will be advised which loading bay to reverse the trailer onto and will be issued with a corresponding salvo lock and key. The salvo locks and keys are uniquely coded for each bay so they are not interchangeable

3 However, on arriving at a site, a driver may be directed to park or uncouple the trailer in a location other than a loading bay as directed by the logistics office or designated yard marshal

4 The salvo locks are kept in a dedicated enclosure box, typically located in the logistics office. It is the responsibility of the logistics office or designated yard marshal to issue and control the salvo locks

5 The driver will return to his vehicle and reverse onto the allocated loading bay ensuring that no un/coupling is taking place on the bays either side. If such activity is taking place the driver must wait until the tractor unit involved has driven away. Only reverse onto a bay with a Green light showing. If a Red light is illuminated, return to the logistics office for further guidance

6 Once successfully parked on the loading bay, climb up onto the rear platform and disconnect the trailer susie airlines and electric connectors (Figure 1). Removing the emergency brakeline applies the trailer brake and inhibits the movement of the trailer

7 Slide the salvo lock over the exposed red emergency brake line (Figure 2)

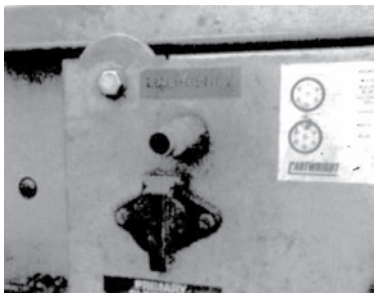


Figure 1

Figure 2

8 Rotate the key anticlockwise to lock in position (Figure 3)

9 Pull the key to remove it from the salvo lock (Figure 4), which is now firmly secured onto the coupling

Figure 3

Figure 4

10 The tractor unit can only be uncoupled from the trailer once the salvo lock is attached and is then parked up in the designated area

11 The roles and responsibilities of, and the interaction between, drivers and warehouse staff are clarified by the respective site rules which accommodate varying loading bay layouts and operational requirements

12 On some sites, the driver is responsible for giving the salvo key to and advising the warehouse staff that the trailer has been parked on the loading bay and is ready for un/loading to commence

13 On other sites, it is the responsibility of the driver to operate the loading bay door and dock leveller in preparation for un/loading by warehouse staff or the driver him/herself

Powered loading bay doors

14 To operate the loading bay door and dock leveller controls, the salvo key must be inserted into the Salvo Control Panel (SCP) which is located adjacent to the loading bay control panel. Turn the key clockwise to secure into position. This will then illuminate the light on the SCP (Figure 5) and activate the door controls

15 Once the door is fully raised, the key is trapped in the SCP and cannot be removed

16 Follow the process for operating the loading bay and dock leveller, so that un/loading can commence

17 The driver will be advised when a load is ready to be removed from a loading bay via the logistics office or designated yard marshal

18 Once un/loading has been completed and the trailer is ready for removing from the loading bay, the salvo key needs to be released from the SCP. Retract the dock leveller and close the loading bay door

19 Prior to closing the loading bay door the driver must check the integrity of the rearmost loading bars to ensure that the load has been correctly secured. If a visual check for any non utilised loading bars and associated straps indicates that the load has not been adequately secured, please advise a FLM

20 Follow the process for removing the dock leveller from the trailer and closing the loading bay door. Depending on site protocols, this task will be executed by warehouse staff or drivers

21 Once the loading bay door has been fully closed, the salvo key is released by simultaneously pressing the illuminated button and turning the key anticlockwise (Figure 6). Rotate to the endstop, then remove the key from the SCP

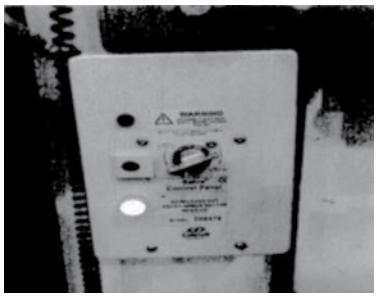


Figure 5

Figure 6

Manual loading bay doors

22 For manually operated loading bay doors, a mechanical interlock is used to positively bolt the loading bay door in the closed position which disables the dock leveller controls. The unit incorporates a locking bolt which passes through the door running rail and into the 'Hercules' lock body (Figure 7)

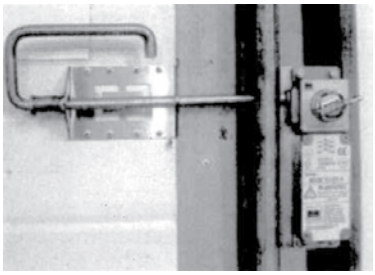


Figure 7

23 To operate, insert the key and rotate clockwise (Figure 8).

24 The locking bolt can now be rotated on its axis (Figure 9) and released (Figure 10)

Figure 8

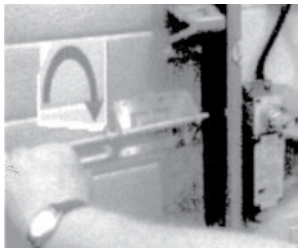


Figure 9

Figure 10

25 The turning of the key powers the dock levellers, changes the traffic lights and illuminates the trailer access light. The loading bay door can now be opened. With the door open, the key is retained in the lock. The dock leveller can now be operated as normal

26 Reverse the process to close the loading bay door and release the salvo key

Bollard and chain lock

27 The Salvo barrier system typically comprises of a pair of bollards, a chain and an interlock key and lock (Figure 11). This is used in installations when the dock leveller is separate from the loading bay door (Figure 12)

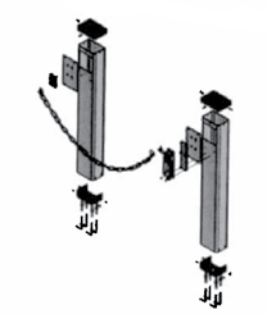


Figure 11

28 Un/loading cannot take place with the chain attached to both bollards. Internal loading bay traffic light will be Red

29 By inserting the salvo key into the lock body and turning the key anti-clockwise, the chain can be removed from the bollard (Figure 13). The chain is secured to the left hand bollard

30 The dock leveller can now be operated as normal in preparation for un/loading (Figure 14)

31 Upon completing of un/loading, reset the dock leveller and reattach the chain to the lock which will enable the salvo key to be released

Figure 12

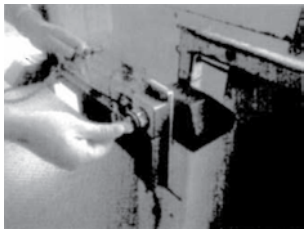


Figure 13

Figure 14

32 The salvo key can be given to the driver, once released from its appropriate lock. The tractor unit can now be coupled to the trailer

33 Whilst standing on the tractor unit's rear platform, insert the key into the salvo lock, turn anticlockwise to enable the salvo lock to be removed from the trailers, emergency airline

34 Once the coupling process has been completed, the driver may remove the trailer from the loading bay, park up in the designated area

35 The driver must return to the logistics office, where the salvo lock and key will be exchanged for the appropriate paperwork for the load

Note: Drivers are not permitted to leave site without returning the salvo lock and key to the logistics office

36 For all sites which operate a shunter vehicle to manoeuvre trailers on or off loading bays, the exact same process shall apply in all instances

Safe System of Work

TASK: OPERATING THE COMBO DECK BAY 31 AND 32

This procedure is unique in that the two bays in question are design to operate Rigid and Trailers.

PPE Required:

 Safety footwear

 Hairnet

 Gloves

 Snoods to be worn where required

 High Visibility Vest

 Gloves optional

Logistics SSOW 000

Despatch SSOW 001

APPLYING THE SALVO SYSTEM TO RIGID

Beginning and end of the shift

The operative responsible for the rigid off loading operation will report to the Logistic office at the beginning of the shift each day.

He will sign for the collection of:

A One key for each ofthe two perspex storage boxes mounted in the offloading deck area

B The two salvo keys for operating bay 31 and 32

They must make their way to the basket deck and immediately unlock the compartment boxes, place the Salvo Key within each compartment and lock the compartment boxes. The box keys and the two salvo locks will be returned to the transport office at the end of each day when the rigid unloading operation has been completed.

The rigid offloading operation commences at approximately 7.00 daily and is completed by approximately 14.00
There are approximately 50 rigids to be unloaded daily during Monday to Saturday and 25 during Sunday.

Rigid

When the drivers return to the depot to commence the offloading of equipment (ie Baskets and store returns) they proceed to the oftloading bays and reverse onto the bay always adhering to the Traffic Lights System. Before reversing the driver must straighten the trailer in line of the bay. Exit the trailer and lower the hydraulic tail left to prevent mechanism being caught up in the buffer flaps at point of contact of the bay. The rigid is then secured with the parking brake on and doors locked

Entering the warehouse

The rigid driver must wear the correct PPE and adhere to the pedestrian walkways from his rigid to the entrance to the warehouse. Inside the warehouse the drivers must be aware of MHE, pedestrian and basketeer movement within and around the operating area.

1 The driver will hand the Rigid Key to the operative responsible for managing the offloading operation

2 The operative will take the vehicle key, approach the appropriate compartment box for the bay on which the Rigid has parked, unlock the box, take out the Salvo key, place the Rigid Key on the hook in the box and lock the box.

3 The Salvo key will be used to unlock the bay doors

4 The Traffic lights on the bay will change simultaneously from GREEN to RED on the outside and ON to OFF on the inside

5 ***(At no point should the Compartment Box be empty during this period. If the Salvo Key is present then there should be no vehicle operation on the bays. Should a Rigid key be present then vehicle operation is in progress)***

6 The operation of offloading the rigid will proceed by the operatives and assisted by the rigid driver

All Operatives working on the offloading operation will be trained and 'signed off' in the relevant SSOW

Area: **Yard** Activity: **Supplier Reversing onto Bay** *(not 'Drop & Drive')*

Activity Overview and Purpose

Supplier Driver arriving at Depot (with Traka board panel system fitted) being allocated, and reversing onto, a Goods In bay

Produced by: Simon Pritchard

Document ID: SSOW-T&C-GI-01-version1

Date: 05/04/11

Review Date: 05/04/16

Equipment Required

- Traka board panel
- Traka board proximity Fob and IFobs

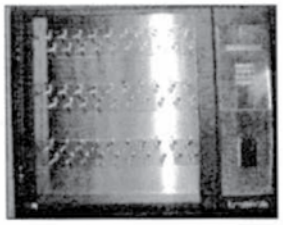
PPE Required

Significant Hazards

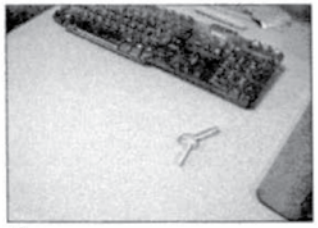
- Slips & Trips (curbing/wet/ice/oil)
- Being struck, trapped or crushed by moving vehicles
- Unscheduled trailer departure from bay

Hazards are Controlled by Ensuring that:

1. Upon arrival on site at the Simpler Gatehouse barriers, the supplier Driver collects site safety instructions and contacts the Goods In Clerk via the intercom. Once they have verified the supplier delivery the Clerk allocates a Goods In bay after checking which bays are free on the Traka board panel **(a)** (bays in use will have IFobs with vehicle keys on them). The clerk then opens the main gate and instructs the Driver to place their vehicle onto the allocated Goods In bay.
2. As soon as they have allocated the bay to the supplier delivery, the Driver Key IFob is removed by the clerk from the Traka board panel and placed on the work desk **(b)**. This is to ensure that the bay is not allocated to another delivery that may follow the arrival of the supplier. All bays are fitted with an interlocked traffic light system where red means stop/wait and green means manoeuvre.
3. Lights will be green when the bay door is closed and red when it's open, therefore reversing onto a bay only takes place when the bay door is closed. Before reversing onto the bay, the Driver opens the trailer barn doors. When the traffic light for that bay is green the Driver can slowly reverse squarely onto the bay ensuring that no pedestrians are in close vicinity of the vehicle.
4. Once on the bay, the Driver applies the tractor unit brake, puts the truck into neutral, switches off the engine, exits the vehicle, locks the cab doors and brings the vehicle ignition keys to the Goods In Office. When the Driver enters the Goods In office the Clerk checks what bay they have placed their vehicle on. Before leaving the desk the Driver must hand their ignition keys for the vehicle to the Clerk.
5. The Clerk should also ask the Driver if they have a second set of ignition keys for the vehicle and, if they do, these should also be handed over. This is an essential control to prevent unscheduled drive aways. All ignition keys are attached to the Driver Key IFob and then the IFob is placed back in the Traka board panel in the allocated bay's hole. Next the clerk removes the Receipt IFob for the relevant bay and gives it to the supplier Driver **(c)**.
6. A Driver must not return to their vehicle whilst it is being unloaded. If a driver does leave the designated waiting area then the clerk should inform a manager immediately. The unloading process can now start in the warehouse. Once the bay door is raised a red light will show on the Traka board panel for the relevant Goods In bay and the supplier vehicle keys will not be able to be removed from the Traka board panel.
7. When the unloading process is complete and the bay door closed, a green light will show on the Traka board panel for the relevant Goods In bay and a Goods In Note will print off in the office confirming the unloading process is complete. The supplier Driver is then called back to the counter and asked to return the Receipt IFob which is then returned by the Clerk to the relevant bay slot on the Traka board panel. The Driver Key IFob can then be removed and the supplier vehicle keys handed back to the Driver. The Driver can now leave the site.



a.



b.

If the trailer has been placed on a different bay to the bay allocated, the Driver is asked to move the trailer onto the correct one.

c.

Repositioning a Supplier Trailer which has been incorrectly parked:

If a trailer is parked too close to the bay, or not central and/or straight enough, then it may not be possible to operate the dock leveller on the Goods In bay.

Example of incorrectly parked vehicle preventing use of dock leveller

The driver should be asked to re-collect their keys, return to the vehicle and reposition it correctly. After having done this the Diver should ensure the handbrake is applied, return their keys to the Goods In Clerk and not return to their cab until the vehicle has been unloaded.

Area: **Yard** Activity: **Shunting Operations**

Activity Overview and Purpose

The coupling, reversing and uncoupling of trailers in the yard using a Shunt Vehicle and how Shunters interact with the Castell System.

Produced by: Simon Pritchard

Document ID: SSOW-T&C-Ya-02-version1

Date: 20/04/11

Review Date: 20/04/16

Equipment Required

- Shunt vehicle
- Two way radio
- Castell equipment

PPE Required

Significant Hazards

- Slips, trips & falls
- Collision with other MHE / Pedestrians / fixed object
- Trapping hazard

Hazards are Controlled by Ensuring that:

Coupling

Shunter collects Shunter vehicle from designated park area and performs pre-op safety checks to ensure equipment is fit for use *(see below)*

Depot speed limits must be observed at all times and the Shunter remains vigilant for other vehicle and pedestrian movements in the Yard

Shunter Vehicle Check List:
- diesel, oil & water levels
- windscreen washer bottle
- general cleanliness
- vehicle damage
- seatbelt, horn and wipers
- lights
- tyres inflated and no sign of damage
- Tyres have adequate tread

Any defects are reported to a Transport Team Manager

When getting in and out of a shunter unit the Driver should use the handrail provided and always follow the Three Point Rule: three of his four limbs must remain in contact with the vehicle at all times, thereby reducing the likelihood of slips and falls

1 Shunter checks that the yellow trailer service template sticker is in date for MOT, Service and Tail-lift inspection. Any exceptions should be reported to a Transport Team Manager.
Before coupling with a trailer, Shunter checks that the trailer's brakes are on (a) and that no personnel are working on it, observing bay traffic lights and only couples under a green light.
Before reversing, Shunter lines up trailer, checking 5th wheel height to ensure a good connection. Shunter reverses under trailer (b), takes the weight of the trailer, then continues to reverse to couple and checks that connection is complete by attempting to drive forward twice. Shunter applies tractor handbrake

When coupling to a 10 metre trailer, the Shunter checks that the trailer has been left with the trailer wheels in the 'straight-ahead' position i.e. parallel to the trailer. This ensures that the rear-steer mechanism is in the correct position for coupling.

N.B. If the trailer wheels have been left at an angle, then care should be taken to couple at the appropriate angle to ensure successful coupling with the 5th wheel

2 Shunter connects all three air and electrical sauies (c) and releases the trailer parking brake (d). If a dock-spotter is fitted, trailer is lifted (e) or Shunter raises the trailer landing legs. Shunter always drives with tail-lift fully stowed and locked in position and with its electrical coupling disconnected from the Shunter vehicle. Shunter observes loading bay wheel guides when moving off

With double-deck trailers, Shunter is aware of reduced clearance around canopies and loading bay wheel guides, making use of trailer air suspension systems to compensate. Also, Shunter raises the trailer landing legs on double-decks using the handle rather than the dock-spotter

Reversing

Before reversing a trailer into a parking area or loading bay, Shunter ensures that it is clear to do so, and checks for ground clearance with double deck trailers.
If positioning onto a loading bay, Shunter checks that the bay traffic light is showing green. Shunter always reverses on the Driver's side (the off-side), only reversing on the blind side if there is no alternative, taking every precaution to avoid any sort of collision

When reversing to park a 10 metre trailer, Shunter ensures that the trailer wheels are left in the 'straight-ahead' position i.e. parallel to the trailer. This ensures that the rear-steer mechanism is left in the correct position for subsequent coupling manoeuvres

Uncoupling

After reversing into the parking position (on firm and level ground), Shunter applies tractor handbrake. Shunter lowers the trailer (if dock spotter is fitted) or lowers the landing legs using the manual handle. Shunter applies the trailer parking brake and then disconnects all electrical lines, turns the fridge on on a temperature controlled trailer and pushes the 5th wheel release button and security clip, if fitted. Shunter moves away slowly from trailer to allow it to settle firmly on the legs.

Castell System

Articulated Vehicles
Once the trailer has been reversed onto a Goods Out bay and the shunt unit uncoupled, the Shunter walks to the bay's Castell Key Box, unlocks it using the generic key and takes out the Salvo unit. The Salvo unit is placed over the airbrake susie line coupling connector of the trailer and its key is rotated anti-clockwise and removed from the Salvo unit. The detached key is then taken to the Castell bay Control Panel, inserted into the marked area on the panel and rotated clockwise. This illuminates an orange beacon on the inside warehouse-side of the bay door, indicating to the team member inside that the bay door may be opened. Once the bay door is raised the key is trapped. When the door is lowered after loading has completed and when informed to do so by a Goods Out Manager, the Shunter can remove the trailer (reversing the process described above).

Rigid Vehicles
The process for rigid vehicles is different as they do not detach as part of an uncoupling process. For rigid vehicles, the ignition keys have a Salvo key permanently fixed to their key ring. Once the vehicle has been reversed onto a Goods Out bay, the Shunter gets out of the vehicle, locks the cab doors then walks to the Castell bay Control Panel. The Salvo key is inserted into the marked area on the panel and rotated clockwise. This illuminates an orange beacon on the inside warehouse-side of the bay door, indicating to the team member inside that the bay door may be opened. Once the bay door is raised the key is trapped. When the door is lowered after loading has completed and when informed to do so by a Goods Out Manager, the Shunter can remove the vehicle (reversing the process described above).

← Castell System Photos

Castell Key Box (exterior)


Castell Key Box (interior)

Castell Salvo Unit


Salvo Unit attached to susie connector


Salvo Unit key inserted into Castell bay Control Panel

Area: **Goods Out** — Activity: **Loading**

Activity Overview and Purpose

Loading units of delivery onto trailers on a Goods Out Bay fitted with the Castell system.

Produced by: Simon Pritchard

Document ID: SSOW-T&C-GO-02-version3

Date: 18/07/11

Review Date: 18/07/16

Equipment Required

- Loading MHE
- Shrink-wrap

PPE Required

Significant Hazards

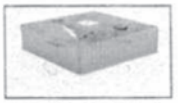
- Slips, trips & falls
- Collision with other MHE / Pedestrians / fixed object
- Manual Handling injury
- Unscheduled trailer departure from bay

Hazards are Controlled by Ensuring that:

1 Loader obtains MHE from designated park area and performs and records safety checks on equipment appropriate to truck to ensure equipment is fit for use (defect procedures apply if not). Loader travels to Goods Out bay. Once at bay, Loader removes and disposes of any litter/rubbish on the bay and ensures work area is clear of any obstructions.

At the bay the Loader checks that that the orange beacon fitted on top of the internal bay control panel is lit (see picture below).

This indicates that that the trailer to be loaded is on the bay, the tractor cab/shunt unit has been uncoupled and it is safe for the Loader to load. The Loader then activates the air bags (if applicable) ensuring they inflate correctly around the trailer and opens the bay door, then switches on bay lights.



Internal Bay Control Panel Orange Beacon

2 No attempt should be made by the Loader to open the bay door if the orange beacon is not lit. Instead, the Loader should report this to a Goods Out Manager immediately and wait for further instructions.

For temperature controlled trailers:
Each trailer compartment is set to +1 before loading begins. Each trailer compartment is then set to the correct temperature once it is loaded with the correct product and the bulkhead has been put in place.
Also see associated SSOW: Lifting Bulkhead Doors

Using the trailer shutter 'D' handle, Loader slowly raises shutter using good manual handling technique. Loader operates dock leveller, standing clear of it whilst in operation, and ensures flap sits with sufficient overlap on the base of the trailer.

3 Before loading the Loader should perform a set of trailer checks. Trailers are clean, dry, undamaged and clear of debris. Sufficient bulkheads and straps are in place and the load restraint system is fit for purpose. Any loose restraint straps are stowed away to ensure safe entry/exit. If spring-clips are fitted to strap hooks they must be in place and defect-free. Trailers have a working Encrypta unit and cable in place.

Before loading a cage, the Loader ensures that red straps (two-sided cages) are in place and that product is safely stacked within the confines of the cage (consolidating when required) and that the cage is undamaged.

When loading using MHE, the Loader must check route is clear before moving, must sound horn each time he exits the trailer and always looks in direction of travel. Loaders should also always remain vigilant for the movement of other MHE, particularly when assembled units of delivery are being dropped off in the area.

4 Cages are loaded in rows of three, dollies and MUs in fours. Single dollies and MUs should be loaded between two cages. Empty cages should be loaded to complete rows with less than three cages or four dollies / MUs, but should not be used in the final row. When loading three cages abreast, the two outer cages should be loaded first and the third placed between the two outer ones. Swivel wheels on all cages should be left facing the rear (trailer door) end of the trailer.

Cages/Dollies/MUs are then strapped securely in place **every row**, with one end of the load restraint strap attached to the side lock rail half-way along the outer side of the cages and then the other end attached to the side lock rail on the opposite side of the trailer, again ensuring it is positioned half-way along the side of the outer cage. The slack on the restraint strap is pulled and folded or ratcheted tight. When pulling tension into a strap, Loader stands face-on to the load and pulls the strap across the body rather than pulling it towards him/herself & leaning back which can lead to injury.

5 Loader should attempt to distribute weight evenly across the trailer. This means that, for example, there shouldn't be all heavy cages loaded down one side of the trailer and all light cages down the other.

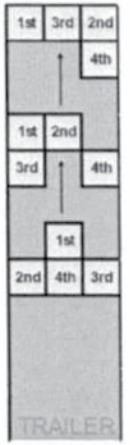
For temperature controlled deliveries, frozen product should be loaded first, whenever possible, closest to the refrigerated unit with bulkheads used to separate different temperature settings.

NB. Never 'power-load' (filling a trailer with un-strapped UODs) before strapping. Load 3 cages / 4 dollies at a time (when using a 3 cage loading truck), position correctly, strap and then exit the trailer to collect further UODs.

The last row of three cages should be double-strapped for safety and if made up of two-sided cages should also be shrink-wrapped (and split loads should also be double-strapped/ shrink-wrapped to identify the load-split).

6 **Loading using a Four Cage Loading Truck:**
When using a four cage loading truck it may be necessary to first manually re-position the last four Units Of Delivery (that are closest to the racking end of the bay) into the middle of the bay. This is in order to safely manoeuvre this longer truck without having to travel too closely to the racking.

(See Diagram to Right)
When the Loader is using a four cage loading truck to load cages, three cages should be strapped in place with the fourth cage positioned to one side for the next row **(A)**.
When the next four cages are loaded, two cages should be positioned to make up the second row. This will make a full row of three cages to be strapped securely. The remaining two cages will be positioned to either side for the next row **(B)**.
When the next four cages are loaded, the first cage will be positioned to the middle gap making a row of three cages to be strapped securely. This will leave three cages to be strapped securely **(C)**.
The routine then repeats as necessary until the load is completed.



7 Dock leveller is raised and ramp returned to secured position. The trailer shutter is closed, the shutter handle placed in the locked position and the trailer sealed (having ensured no-one is still in the trailer). To seal, the Loader threads the cable from the Encrypta unit through the aligned holes of the handle and the lock and then returns the cable back into the Encrypta unit and locks in place. After checking the shutter can't be accidentally opened the Loader closes the bay door.

Loading Pallets

Pallets should be loaded at least 9 cages (3 rows) back into the trailer so that they can be safely unloaded onto a tail-lift using a pallet truck by the Driver at a tail-lift delivery store, without the Driver having to walk onto the tail-lift to conduct the turn. The only exception should be for unusually shaped pallets (e.g. a pallet with a single flat-screen TV on it) which may need to be loaded last in order to maintain overall load integrity.

When loading 8 metre fridge trailers it is crucial that heavy pallets (or heavy cages) are **not** loaded up against the trailer headboard. Instead, light or empty cages should be loaded for the first 3 rows in order to reduce the risk of the trailer tipping whilst being loaded.

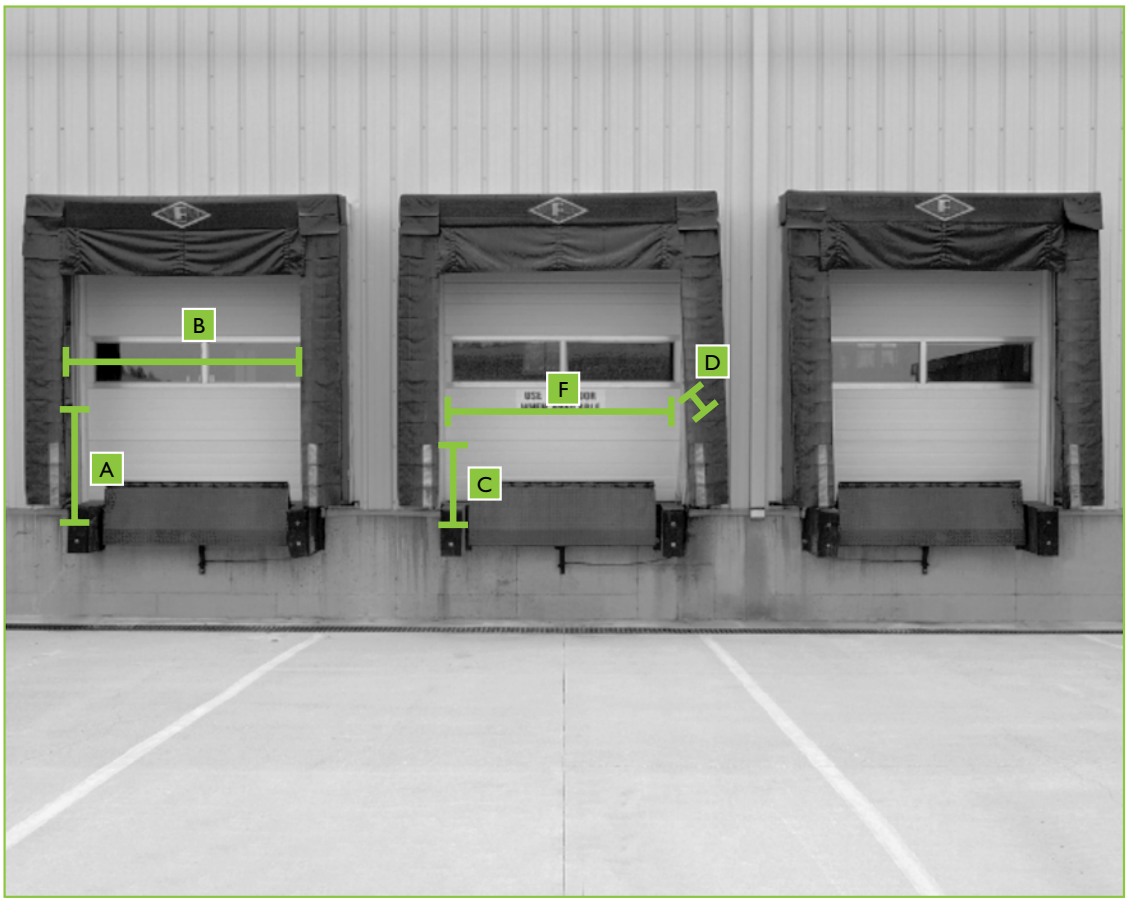
The strapping guidelines in this safe system of work are for trailers with the conventional horizontal single strap system.
For "Strap 2000" load restraint instructions, see associated SSOW: Strap 2000

Dock, vehicle/trailer and buffer position example survey

Background

We have developed this short questionnaire to evaluate the variations in dock, vehicle and buffer dimensions, as well as to identify some key issues in order to assess potential issues at depots and for those operating visiting vehicles. If you cannot get access to all the information listed, please submit the data you have as this will still be of use to us.

Dock and buffer information



Dock, vehicle/trailer and buffer position example survey

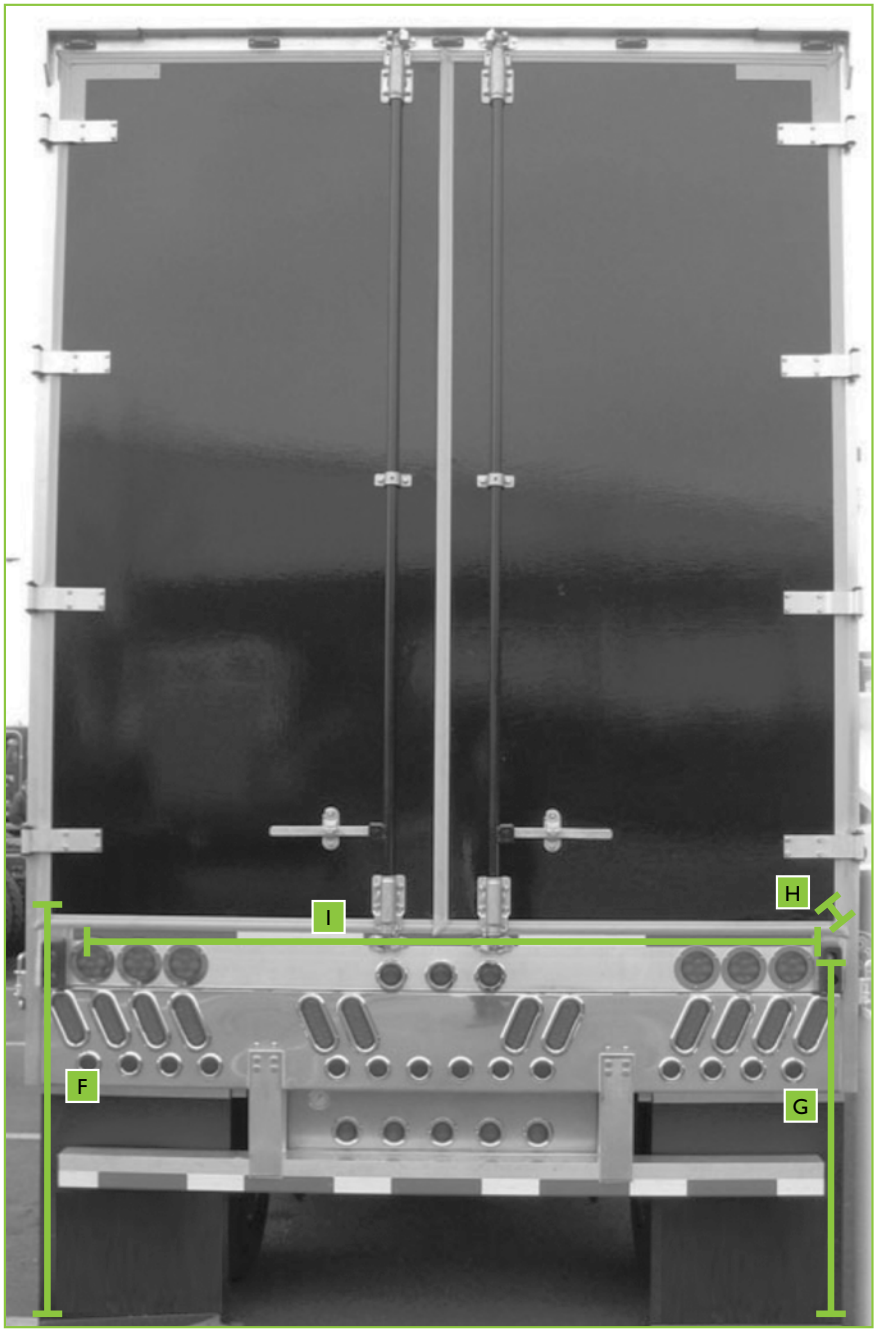
Please detail the dimensions of your loading docks using as many of the rows necessary to capture the various locations (depots) you may have. If you have more than 15, please add additional rows.

	A	B	C	D	E
Location	Dock height – from ground to floor of dock (cm)	Dock door width (cm)	Buffer height – ground to centre of buffer (cm)	Buffer depth – projection from dock face (cm)	Buffer width – between buffer centres (cm)
Location 1					
Location 2					
Location 3					
Location 4					
Location 5					
Location 6					
Location 7					
Location 8					
Location 9					
Location 10					
Location 11					
Location 12					
Location 13					
Location 14					
Location 15					

2 Dock, vehicle/trailer and buffer position example survey

Dock, vehicle/trailer and buffer position example survey

Vehicle/trailer information



Dock, vehicle/trailer and buffer position example survey

Please indicate the vehicle or trailer bed heights of your own vehicles in the table below.

	F			G	H	I
				Typical vehicle buffer dimensions		
	Typical bed height (cm from ground)	Lowest bed height (cm from ground)	Highest bed height (cm from ground)	Height – ground to centre of buffer (cm)	Projection – from sill edge (cm)	Width – between buffer centres (cm)
Refrigerated vehicle						
Curtain sided vehicle						
Box vehicle						
Skeletal trailer						
Double-decked trailer						
Curtain sided trailer						
Demountable body						
Other *(please specify)*						
Other *(please specify)*						

Dock, vehicle/trailer and buffer position example survey

Issues

Please use the table below to advise if any of the issues could affect your operations, or of any other issues you have identified, that are not listed. It would also be useful to know about any technical or management actions taken to resolve the issue.

Issue	Affected? Y/N	Equipment/actions taken to resolve issue
Dock creep *Vehicle moves away from the dock*		
Load run-away *Load runs into the vehicle or out into the dock*		
Water leaks *Where this is caused by poor dock curtain fit*		
Driver pull-away *Driver moves the vehicle before loading/unloading has completed*		
Coupling/uncoupling *Trailer moves during coupling/uncoupling procedure*		
Other *Please specify*		
Other *Please specify*		
Other *Please specify*		
Other *Please specify*		

Your details

Name_____

Organisation name_____

E-mail address _____

Telephone number_____

THANK YOU FOR FILLING IN THIS SHEET

HSE

Health and Safety Executive

Site Inspection - Workplace Transport Checklist

- The following checklist has been prepared as a guide to what employers should consider when trying to reduce the risk from vehicles in the workplace. It will not necessarily be comprehensive for all work situations.
- If the answer to a question is 'No', the references under the section heading indicate where further advice can be found.
- If the question is not relevant to your workplace leave the boxes blank.

1. Management and supervision of workplace transport risk (see References 1, 2, 3, 4, 5)

Check, in consultation with your employees, that your level of management control/supervision is adequate

	Yes	No
Are site rules documented and distributed?	☐	☐
Are your supervisors, drivers and others, including contractors and visiting drivers, aware of the site rules? Are they aware of their responsibilities in terms of helping to maintain a safe workplace and environment?	☐	☐
Has a risk assessment been completed for all workplace transport hazards?	☐	☐
Is the level of supervision sufficient to ensure that safe standards are maintained?	☐	☐
Are sanctions applied when employees, contractors, etc fail to maintain these standards?	☐	☐
Are adequate steps taken to detect unsafe behaviour of drivers of both site and visiting vehicles as well as pedestrians? Are the underlying reasons investigated to correct unsafe behaviours?	☐	☐
Is there good co-operation and liaison on health and safety matters between your staff and those who collect or deliver goods?	☐	☐

Check what your drivers and other employees actually do when undertaking their work activities

	Yes	No
Do drivers drive with care, eg use the correct routes, drive within the speed limit and follow any other site rules?	☐	☐
Do your drivers and other employees have enough time to complete their work without rushing or working excessive hours? Do you monitor "job and finish" work to ensure drivers are not rushing to cut corners?	☐	☐
Are your employees using safe work practices, eg when (un)coupling, (un)loading, securing loads, carrying out maintenance, etc?	☐	☐
Do managers and supervisors routinely challenge and investigate unsafe behaviours they may come across?	☐	☐
Do managers and supervisors set a good example, for instance by obeying vehicle / pedestrian segregation instructions, and by wearing high visibility garments where these are needed?	☐	☐

WTCHK1 *(05.08)*

2. Site layout and internal traffic routes (see References 1, 2, 6, 7, 8, 9 10)

Check that the layout of routes is appropriate

	Yes	No
Are the roads and footways suitable for the types and volumes of vehicular traffic and pedestrian traffic using them?	☐	☐
Are vehicles and pedestrians kept safely apart?	☐	☐
Where necessary, are there suitable pedestrian crossing places on vehicle routes?	☐	☐
Is there a safe pedestrian route that allows visiting drivers to report for instructions when entering the site?	☐	☐
Are there adequate numbers of suitable parking places for all vehicles and are they used?	☐	☐
Is there a properly designed and signed one-way system used on vehicle routes within the workplace?	☐	☐
Is the level of lighting in each area sufficient for the pedestrian and vehicle activity?	☐	☐

Check that vehicle traffic routes are suitable for the type and quantity of vehicles which use them

	Yes	No
Are they wide enough?	☐	☐
Do they have firm and even surfaces?	☐	☐
Are they free from obstructions and other hazards?	☐	☐
Are they well maintained?	☐	☐
Do vehicle routes avoid sharp or blind bends?	☐	☐

Check that suitable safety features are provided where appropriate

	Yes	No
Are roadways marked where necessary, eg to indicate the right of way at road junctions?	☐	☐
Are road signs, as used in the Highway Code, installed where necessary?	☐	☐
Are features such as fixed mirrors (to provide greater vision at blind bends), road humps (to reduce vehicle speeds), or barriers (to keep vehicles and pedestrians apart) provided where necessary?	☐	☐

3. Vehicle selection and suitability (see References 1 and 2)

Check that vehicles are safe and suitable for the work for which they are being used

	Yes	No
Have suitable vehicles and attachments been selected for the tasks which are actually undertaken?	☐	☐
Do vehicles have good direct visibility or devices for improving vision where reversing can't be eliminated and where significant risk still remains eg external and side mirrors; vision aids such as CCTV; sensing device?	☐	☐
Are they provided with horns, lights, reflectors, reversing lights and other safety features as necessary?	☐	☐
Do they have effective service and parking brakes?	☐	☐
Do they have seats and seatbelts where necessary?	☐	☐
Are there guards to prevent access to dangerous parts of the vehicles, eg power take-offs, chain drives, exposed exhaust pipes?	☐	☐
Do drivers have protection against bad weather conditions, or against an unpleasant working environment, ie the cold, dirt, dust, fumes and excessive noise and vibration?	☐	☐
Is there a safe means of access to and from the cabs and other parts that need to be reached?	☐	☐
Are surfaces, where people walk on vehicles, slip resistant?	☐	☐
Is driver protection against injury in the event of an overturn, and measures in place to prevent the driver being hit by falling objects, provided where necessary?	☐	☐
Are operators involved or consulted on vehicle selection?	☐	☐

4. Vehicle maintenance (see References 1 and 2)

Check the level of vehicle maintenance is adequate

	Yes	No
Is there a regular preventative maintenance programme for every vehicle, carried out at predetermined intervals of time or mileage (eg in accordance with manufacturers instructions)?	☐	☐
Is there a system for reporting faults on the vehicle and associated equipment and carrying out remedial work?	☐	☐
Where vehicle attachments lift people or objects, are thorough examinations undertaken by a competent person (eg your insurance company)?	☐	☐
Do the drivers carry out basic safety checks before using the vehicle?	☐	☐

5. Vehicle movements (see References 1 and 2)

Check that the need for REVERSING is kept to a minimum, and where reversing is necessary that it is undertaken safely and in safe areas

	Yes	No
Have drive-through, one-way systems been used, wherever possible to reduce the need for reversing?	☐	☐
Where reversing areas are needed are they marked to be clear to both drivers and pedestrians?	☐	☐
Are non-essential personnel excluded from areas where reversing occurs?	☐	☐
If risk assessment shows site controls cannot be improved further and you need a banksman to direct reversing vehicles, are they adequately trained and visible?	☐	☐

6. Un(Loading) Activities (see References 1, 2, 4, 11 and 12)

Check that there are safe systems for LOADING and UNLOADING operations

	Yes	No
Are loading / unloading operations carried out in an area away from passing traffic, pedestrians and others not involved in the loading / unloading operation?	☐	☐
Are the load(s), the delivery vehicle(s) and the handling vehicle(s) compatible with each other?	☐	☐
Are loading / unloading activities carried out on ground that is flat, firm and free from potholes?	☐	☐
Are parking brakes always used on trailers and tractive units to prevent unwanted movement, eg when coupling vehicles?	☐	☐
Are the vehicles braked and/or stabilised, as appropriate, to prevent unsafe movements during loading and unloading operations?	☐	☐
Are systems in place to prevent trucks driving away while they are still being (un)loaded?	☐	☐
Are lorry drivers and others kept in a safe place away from the vehicle while (un)loading is carried out?	☐	☐
Is there a safe area marked where drivers can observe loading (if necessary)?	☐	☐
Has the need for people to go on to the load area of the vehicle been eliminated where possible and if not is safe access provided and used?	☐	☐
Is appropriate lifting equipment available for (un)loading vehicles?	☐	☐
Is loading / unloading carried out so that, as far as possible, the load is spread evenly to avoid the vehicle or trailer becoming unstable?	☐	☐
Are checks made to ensure the load is adequately secured in line with the Department for Transport Code of Practice and not loaded beyond their capacity before the vehicle leaves the site?	☐	☐

7. Driver competence (see References 1, 2 and 13)

Check that your selection and training procedures ensure that your drivers and other employees are capable of performing their work activities safely and responsibly

	Yes	No
Do drivers possess the necessary licences or certificates for the vehicles they are authorised to drive eg FLT's, shunt vehicles, site dumpers, etc?	☐	☐
Do you check the previous experience of your drivers and assess them to ensure they are competent?	☐	☐
Do you provide site specific training on how to perform the job, and information about particular hazards, speed limits, the appropriate parking and loading areas, etc?	☐	☐
Do you have a planned programme of refresher training for drivers and others to ensure their continued competence?	☐	☐

See over the page for Section 8 (Un)sheeting and Section 9 Tipping

References

1. Workplace Transport Safety: Guidance for Employers. HSG 136, HSE Books, 2005, ISBN 0-7176-6154-7.
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3. Five Steps to Risk Assessment. Leaflet, INDG 163(rev 2), HSE Books, 2006.
4. HSE Information Sheet WPT06 Delivering Safely - free download at HSE Website.
5. Health and Safety in Road Haulage. Leaflet, INDG 379, HSE Books, 2003.
6. The Highway Code. Department of Transport, download at http://www.direct.gov.uk/en/TravelAndTransport/Highwaycode/index.htm
7. Designing for Deliveries Freight Transport Association 1998, ISBN 0 90299163 3 (£80 to members, £100 to non-members from FTA phone 01892 526171).
8. Lighting at Work. HSG 38, HSE Books, 1997.
9. Safety Signs and Signals - Guidance on the Regulations. L64, HSE Books, 1996.
10. The Traffic Signs Regulations and General Directions, 2002.
11. Code of Practice: Coupling or Uncoupling & Parking of Large Goods Vehicle Trailers, 2006. Institute of Road Transport Engineers (IRTE), Society of Operations Engineers (SOE), 22 Greencoat Place, London, SW1P 1PR. Telephone 020 7630 1111, website www.soe.org.uk.
12. Code of Practice - Safety of Loads on Vehicles (third edition) 2002, Department of Transport, ISBN 0 11552547 5 (http://www.dft.gov.uk/pgr/roads/vehicles/vssafety/safetyofloadsonvehiclescodeo4566)
13. Rider-operated Lift Trucks: Operator Training. L117, Approved Code of Practice, HSE Books.

8. (Un)sheeting (see References 1, 2)

Check that sheeting and unsheeting operations are carried out safely

	Yes	No
Do you use ground based sheeting methods?	☐	☐
Are sheeting and unsheeting operations carried out in safe parts of the workplace, away from passing traffic and pedestrians and sheltered from strong winds and bad weather?	☐	☐
Are the vehicles parked on level ground with their parking brakes on and the ignition key removed?	☐	☐
Are gloves, safety boots, and, where necessary, eye and head protection provided, and used by those engaged in the sheeting / unsheeting operations?	☐	☐
Where manual sheeting is unavoidable, is there a system in place which avoids the need for a person on to climb on the vehicle or load, ie by providing a platform from which loads can be sheeted?	☐	☐

9. Tipping (see References 1, 2)

Check that tipping operations are carried out safely

	Yes	No
Do visiting drivers report to the site manager for any relevant instructions prior to commencing tipping operations?	☐	☐
Are non-essential personnel excluded from tipping areas?	☐	☐
Are tipping operations undertaken on ground that is level and stable, and a location free from overhead hazards such as power lines, pipework, etc?	☐	☐
Where sites are not level and stable, are the tipping faces safe for vehicles involved in tipping operations, eg compacted and no side slopes?	☐	☐
Are suitably sized wheel-stops provided where vehicles need to reverse prior to tipping?	☐	☐
Are drivers clear about when tailgates should be released or removed?	☐	☐
Do drivers check that their loads are evenly distributed across the vehicle prior to commencing tipping operations?	☐	☐
Are the drivers sufficiently experienced to anticipate loads sticking?	☐	☐
Do drivers always ensure that the body is completely empty, and drive no more than a few metres forward to ensure the load is clear?	☐	☐
Is there a system of maintenance in place for the tipper and the tipping mechanism?	☐	☐

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