



This section outlines the precautions necessary to ensure the safe use of compact dumpers (commonly known as site dumpers) in the construction industry. It is aimed at managers and drivers and all those who influence the use of compact dumpers. The term compact dumper includes both articulated and rigid-frame machines, with two-or four-wheel drive, and with front, rotary or side tipping skips. Compact dumpers are involved in around a third of construction transport accidents, causing many deaths and serious injuries, particularly to drivers. The three main causes of compact dumper accidents are:
Overturning on slopes and at the edges of excavations, embankments, etc.
Inadequately maintained braking systems.
Driver error due to lack of experience and training, e.g. failure to apply the parking brake, switch off the engine and remove the keys before leaving the drivers seat.

What the Law Requires

Hirers and users of compact dumpers both have legal duties, which aim to prevent accidents. Work equipment should be safe when supplied and the risks arising during use need to be controlled.
Those in control of work should assess risks, plan safe systems of work and make sure workers on site know what they are, and follow them. Drivers should always follow safe systems of work and refrain from taking shortcuts.

Driver Protection

Drivers need protection from the risks associated with dumpers rolling-over and from being hit by falling materials. Where there is a risk of compact dumpers overturning and injuring the driver, rollover protective structures (ROPS) and seat restraints should be fitted. Where drivers are at risk of being hit by falling materials, compact dumpers should be fitted with falling-object protective structures (FOPS). ROPS, seat restraints and FOPS need to comply with the essential health and safety requirements of the Supply of Machinery (Safety) Regulations 1992 but do not need to be CE marked.
Some models of compact dumpers may become unstable on slopes greater than 1 in 4, so it is important to follow the manufacturers guidance regarding the capabilities of each specific vehicle. Where there is a risk of compact dumpers overturning during use, e.g. on steep gradients or rough ground, they should be fitted with ROPS to International Standard ISO 3471:1994 and seat restraints to ISO 6683:1981. Seat restraints must be worn where ROPS are fitted to prevent injury if the dumper overturns.
Four-wheel drive compact dumpers supplied new or hired after the 5 December 1998 should be fitted with ROPS and seat restraints because they tend to be used on steep or rough ground where the risk of roll-over is high. Two-wheel drive compact dumpers supplied new or hired after the 5 December 1998 should also be fitted with ROPS and seat restraints, unless there is no significant risk of roll-over in the environment in which they are used.

Safe Systems of Work

Managers play a key role in ensuring the safe use of compact dumpers.
Managers need to ensure that safe vehicles are provided and that safe systems of work are planned and put into practice.
Managers should ensure that all site vehicles:

- Are capable of safely performing the tasks they are expected to perform.
- Are operated and maintained according to the manufacturers instructions.
- Are driven by competent drivers.

Site managers should pay attention to the provision and maintenance of a safe work environment for compact dumper operations by ensuring vehicle traffic routes are safe. In particular, site managers should ensure that:

Stop blocks are positioned a safe distance from the edges of excavations, pits, spoil heaps, etc., to prevent dumpers falling during tipping.
Edges of roadways and tipping points are supported where necessary to prevent collapse and provided with physical protection to prevent vehicles running off the roadway.

The public are not put at risk from site operations.

Workers on site need to know the site health and safety rules, so the provision of site induction training is an important part of ensuring compact dumpers are used safely.

When selecting people to drive dumpers, managers should ensure that they:

- Are competent to safely operate the specific vehicle and carry out daily maintenance checks.
- Hold valid driving licences and training certificates.
- Are not unfit to drive due to the influence of alcohol or drugs.

Drivers should be instructed to always follow safe systems of work, specific site traffic routes and refrain from taking shortcuts.

Particular attention should be paid to ensuring drivers use seat belts where ROPS are fitted to compact dumpers.

Managers should make regular checks to ensure the effectiveness of systems of work.

Examine the work environment to ensure precautions, such as stop blocks, are maintained in a safe condition.

Review maintenance records to ensure compact dumpers are kept in good working order, paying particular attention to braking systems.

Monitor the performance of drivers and give them feedback and any appropriate retraining.

Safe Driving Practices

Drivers have a key role to play in ensuring the safe use of compact dumpers.

Drivers should always:

Read the manufacturers instruction book before operating an unfamiliar vehicle.

Understand the differences in performance when loaded and unloaded, particularly relating to braking and stability on slopes.

Know the different handling and braking characteristics of the vehicle in wet or icy conditions.

Check tyres, brakes, etc., to ensure compact dumpers are safe to use at the start of the working day.

Use seat belts where ROPS are fitted.

Check that nobody is at risk of injury before moving off, particularly in the area obscured by the skip when going forward, and behind the vehicle when reversing.



Keep to designated vehicle routes and follow site rules and safe systems of work.
Drive at appropriate speeds for site conditions.
Follow directions given by traffic signs and signalers.
Load only on level ground with the parking brake applied.
Get off the dumper when it is being loaded and ensure that the skip is not overloaded.
Check that loads are evenly distributed and that they do not obscure visibility from the driving position.
Stop, select neutral gear and apply parking brake, when the machine is tipping into excavations while stationary.
Use proper towing pins with jump out restraints (not bent pieces of reinforcement bar).
Apply the parking brake, switch off the engine and remove the key when leaving the drivers seat.

Drivers should never:

Drive on gradients steeper than those specified as safe for the specific dumper in the manufacturer's instructions.
Operate the site dumper's controls unless seated in the driving position.
Carry passengers unless purpose built seats are provided.
Drive around site with the skip in the vertical discharge position.
Alter tyre pressures outside the manufacturer's specifications.

When using a starting handle, drivers need to:

Select neutral gear and firmly apply the parking brake.
Clear any obstructions.
Select the correct type of starting-handle, which should be in good condition with a handle grip, which rotates freely.
Keep the thumb on the grip of the handle to prevent injury in case of kickback.
Drivers need to take particular care when moving on sloping ground:
Avoid slopes, which exceed the vehicles capability.
Descend significant slopes down the gentlest gradient in low gear or reverse down slopes to ensure good stability and traction.
If turning is unavoidable when travelling across slopes – turn uphill, not downhill.

Legislation

Health and Safety at Work etc. Act 1974. Supply of Machinery (Safety) Regulations 1992. Management of Health and Safety at Work Regulations 1992. Construction (Design and Management) Regulations 1994. Provision and Use of Work Equipment Regulations 1998. Construction (Design and Management) Regulations 2007