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# Mobile work equipment



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## MOBILE WORK EQUIPMENT

### What your site and employer should do for you

1. Provide safe methods for deliveries, unloading and parking for mobile work equipment.
2. Provide suitable and well maintained mobile work equipment.
3. Provide separate routes for pedestrians and vehicles.
4. Provide signage, road markings, barriers and lighting.
5. Impose speed limits, arrange one-way systems where possible, and ban or control reversing.
6. Explain the site traffic rules at your induction.

### What you should do for your site and employer

1. Follow all signs and speed limits and use unloading and parking areas as instructed.
2. Only use designated vehicle routes when operating plant and only use pedestrian routes when walking.
3. Do not bring any vehicle onto site unless your supervisor has authorised you to do so.
4. Do not move or operate mobile work equipment unless you are trained and have been authorised to do so.
5. If you are an operator, make sure all pre-start checks and daily maintenance actions are carried out.
6. Always wear your high-visibility clothing.
7. Report any mobile equipment or plant movement that you think is unsafe or too close to your area of work.

### Introduction

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Mobile-operated plant and vehicles cause many accidents and serious injuries on sites every year. The accidents involve not only the operator but people carrying out maintenance to the vehicle, working close by or walking past.

### Mobile plant and site vehicles

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The term *mobile plant* covers all site vehicles that can move either under their own power or by being towed. Some examples are listed below.

- Dumpers.
- Excavators.
- Telehandlers and forklifts.
- Mobile cranes and piling rigs.
- Mobile elevating work platforms (MEWPs).
- HGVs, lorries and delivery wagons.
- Vans and cars.
- Road rollers, including pedestrian-operated rollers.

The term *operator* is used to describe anyone driving or controlling mobile plant.

The term *pedestrian* means anyone on foot.

### Management of mobile plant

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Whether you are an operator or not, the site rules for the safe operation and segregation of mobile plant and people should be explained to you during your site induction.

A well-managed site will be organised to reduce the chance of accidents between mobile plant and people on foot. The following measures should be in place.

- Separate site entrances for mobile plant and pedestrians.
- Separate routes for mobile plant and people on foot, with barriers between them.
- Mobile plant is only operated by competent, authorised persons.
- One-way systems and site speed limits.
- Amber flashing beacons on mobile plant (and, increasingly, green flashing lights indicating that seat belts are being used).
- All lights are working and switched on after dark or where natural light levels are low.
- All visual aids (such as mirrors and CCTV) are clean and in good condition.
- Turning areas are in place, so that reversing is banned or minimised.
- A vehicle marshaller to control movement of mobile plant.

### Accidents

The most common types of accident are listed below.

- Being struck by reversing or moving mobile plant.
- Loss of control or overturning when working, travelling across or manoeuvring on slopes.
- People falling when climbing into or out of the machine.
- Accidental operation of mobile plant that has been left with the engine running – often when operators are getting into or out of the machine.
- Being crushed or trapped between a structure and mobile plant as it moves or slews around.

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Many accidents involving mobile plant happen because plant is large and the operator has a restricted view. Extra mirrors and CCTV are sometimes fitted to improve the operator's all-round vision. You should not rely on operators using CCTV and mirrors because, for example, a camera lens can be blocked by dirt which would affect the operator's ability to see you. **Always be aware of your surroundings and keep yourself safe.** Do not rely on the operator seeing you.

If you are close to moving or operating mobile plant you could be at risk. Whenever possible, stay within the designated pedestrian routes.



**Even when not travelling, a mobile crane slewing, an excavator digging or a lorry tipping material can still be a danger if you get too close.**

The chance of an accident involving mobile plant and people on foot increases after dark. Even when wearing high-visibility clothing, or if the lighting is good, the operator may still not see you. The use of floodlights and the vehicle lights should improve safety, but it is not a guarantee.



**When light is poor, and after dark, you will be harder to see.**

### Operator's field of vision is restricted

The movement of vehicles and plant should be directed and controlled by a competent person in situations where people could be at risk, such as when a lorry is reversing or when a crane is carrying out a lift.



**A vehicle marshaller controls the movement of vehicles. A signaller controls the movement of a crane or a load being lifted.**

If you are the operator and you lose sight of the person directing you, you must stop and locate them before continuing.



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**Do not try to operate any item of plant unless you are trained, competent and authorised. Some companies need the operator to hold the appropriate industry competence card (such as the Construction Plant Competence Scheme).**

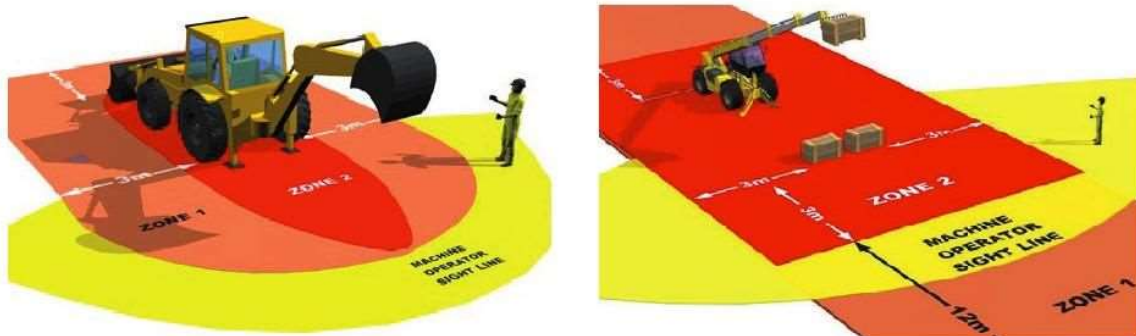
People have been seriously injured or killed when trying to pass too close to moving or reversing mobile plant.

### Plant safe zones

The following diagrams are for guidance and provide information on the safe zones applicable to a range of plant machinery likely to be used on site.

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**Always signal the plant operator and wait for a positive response before entering Zone 1.**

**Keep out of Zone 2 at all times.**



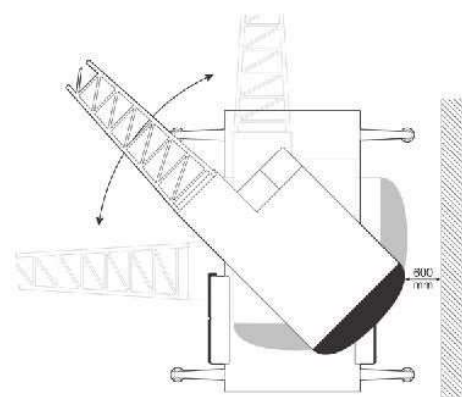
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### Slewing plant

The diagram to the right shows how, as the rear of a slewing crane or excavator turns, the gap between the rear of the machine and a fixed object (such as a wall, stack of materials or other plant) becomes much smaller (becoming a **crush zone**).

This type of accident can and has happened because people on foot did not stay clear of mobile plant, took a short cut or followed a route that was not safe.

If the gap is 600 mm or less during slewing then the gap should be fenced or blocked off.



*Clearance must take into account the reduced space if the crane tips*

## MOBILE WORK EQUIPMENT

If you are operating plant, such as a pedestrian roller or mobile elevating work platform (MEWP), always be aware of your immediate environment and what is behind or above – you may accidentally create your own crush zone.



**Stay out of the crush zone. The shortest route may not be the safest route.**

### Working safely

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- Always wear your high-visibility clothing and keep it clean.
- Keep to the set walkways or pedestrian routes – never remove a barrier to cross a vehicle route.
- If you cannot avoid passing close to mobile plant, or if you need to speak to the operator, you will have to be patient and wait in a safe place until:
  - the operator knows that you are there, the plant stops operating and you are signalled to go past
  - the job has finished and the plant has moved away altogether.
- Stay out of plant compounds and other parking areas unless you are authorised to be there. Be alert to plant starting up and moving off, and keep out of its way.
- Do not ask for or accept rides on plant that is not designed to carry passengers. Deaths have been caused by unauthorised passengers clinging onto an item of plant then losing their grip and falling under the wheels or tracks.
- Tell your supervisor or employer about any aspects of plant operations that you think are hazardous. For example, where mobile plant:
  - uses routes that are only intended for pedestrians
  - ignores one-way systems
  - travels or operates too fast and is a danger to people
  - is operating too close to pedestrians or site operatives carrying out other tasks
  - is operating too close to excavations or at angles that could lead to overturning
  - looks to be defective.

Sometimes there isn't time to tell your supervisor or employer about a problem. If it is safe to do so, make the operator and others in the area aware of the immediate danger. Your employer will still need to know about the problem. They can then make sure that the same situation does not happen again.