

ConstructionSkills Tool Box Talk

No. 18 Manual handling

Prepare	Location? Distractions? Talk aids?
Reason	Every year, a significant proportion of all injuries at work are caused by manual handling.
Why	Get it wrong today and you'll suffer the consequences tomorrow.
Outline	This talk will cover considerations and good techniques for manual handling.

Considerations for manual handling

1. Always use mechanical handling methods instead of manual handling if possible, e.g. forklifts or pallet trucks, etc.
2. Know your capabilities, only tackle jobs you can handle.
3. Can you handle the load yourself, or do you need assistance?
4. Is there a clear walkway with good lighting to the work area?

Q: What checks should you carry out before lifting?

5. Where possible, establish the weight of the load before starting to lift.
6. Wear gloves to protect against cuts and puncture wounds.
7. Wear safety boots or shoes to protect from falling loads.
8. Carry out a trial lift by rocking the load from side to side, then try lifting it a small way to get a 'feel' for it.

Q: What PPE should you wear and why?

Good handling technique

1. Stand reasonably close to the load, feet hip-width apart, one foot slightly forward pointing in the direction you're going.
2. Bend your knees and keep your back straight.
3. Get a secure grip on the load.
4. Breathe in before lifting as this helps to support the spine.

Q: Describe how you would lift an object safely.

5. Use a good lifting technique, keep your back straight and lift using your legs.
6. Keep the load close to your body.
7. Don't carry a load that obscures your vision.
8. Lift slowly and smoothly.

Q: What checks should you carry out before moving off with a load?

9. Avoid jerky movements.
10. Avoid twisting your body when lifting or carrying a load.
11. When lifting to a height from the floor, do it in two stages.
12. When two or more people lift a load, one person must take control to co-ordinate the lift.

Q: When two or more people are lifting a load, what should happen?

- **Note to supervisor:** Now inform your workforce of the company policy regarding manual handling.

Do you have any questions for me?

Questions for you

Q: What should be your first consideration before manual handling?

Q: What should you do to help support your spine?

Q: Name two hazards when lifting and carrying.

REMEMBER POOR MANUAL HANDLING TECHNIQUES CAN CAUSE SERIOUS INJURIES.

Further information

- *Construction Site Safety* (GE 700) – Module B7
- *Site Safety Simplified* (GE 706) – Section 17
- HSE – HSG60 Upper limb disorders in the workplace
- HSE – HSG121 A pain in your workplace?
- HSE – INDG143 Getting to grips with manual handling
- HSE – L23 (Pub. 2004) Manual handling



**TRAINING AND DEVELOPMENT PLAN
SHORT TRAINING SESSION ATTENDANCE SHEET**

Title: Tool Box Talk No. 18 Manual handling	Date
Location	Start time
Duration (minutes)	End time
Presenter's name	Presenter's signature

Candidate's name	Name of candidate's employer	Candidate's signature

Grant claim information

Note: Claims can only be made for your employees or labour-only subcontractors

No. attended	Duration	Total time	Employer reference

ConstructionSkills Tool Box Talk

No. 23 Ladders

Prepare	Location? Distractions? Talk aids?
Reason	Ladders are probably the most used and misused pieces of access equipment.
Why	Use ladders safely to prevent accidents.
Outline	This talk will cover before-use checks, use of ladders, the associated hazards and restrictions.

Before-use checks

1. Ladders must be stored correctly and inspected regularly.
2. Check for splits or cracks in the stiles and rungs.
3. Ensure that none of the rungs are missing or loose.
4. Don't use painted ladders, paint can hide damaged parts.
5. Report defects, label as defective and remove from site.

Q: *What checks should you carry out before use?*

Use of ladders

1. Only light work of a short duration, with a low risk of falling, should be carried out from a ladder.
2. Ladders should be set on a firm base and lean at the correct angle which is **one** unit out to **four** units up.
3. Ladders must be tied near the top and extend a safe distance above the landing stage, unless a hand-hold is provided.
4. If it can't be secured at the top, it may be possible to secure it at the bottom by tying it to stakes driven into the ground.

Q: *At what angle should a ladder be placed?*

5. Ensure your footwear is free from excessive mud or grease before you climb up the ladder.
6. When climbing up or down, use both hands on the stiles. Always face the ladder.
7. Don't overreach from a ladder, always move it.

Q: *How can the stability of the ladder be improved?*

Hazards

1. Don't stand a ladder on a drum, box or other unstable base.
2. Never attempt to repair broken ladders.
3. Never carry loads up ladders – use a hoist.
4. Ladder rungs must not be used as improvised ramps.
5. When using metal or metal-reinforced ladders, make sure there are no electrical hazards in the near vicinity.

Q: *What precautions should you take when using a metal ladder?*

Restrictions

1. Health and safety law on work at height requires that careful consideration is given before the use of a ladder is approved.
2. You may find that you are not now allowed to use a ladder to do a job for which you have used one in the past.

Do you have any questions for me?

Questions for you

Q: *What would you do on finding a defective ladder?*

Q: *What is the correct way to climb a ladder?*

- **Note to supervisor:** Now inform your workforce of the company policy regarding the use of ladders.

Further information

- *Construction Site Safety* (GE 700) – Module C2
- *Site Safety Simplified* (GE 706) – Section 5
- HSE – HSG150 Health and safety in construction



**TRAINING AND DEVELOPMENT PLAN
SHORT TRAINING SESSION ATTENDANCE SHEET**

Title: Tool Box Talk No. 23 Ladders	Date
Location	Start time
Duration (minutes)	End time
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Grant claim information
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No. attended	Duration	Total time	Employer reference

ConstructionSkills Tool Box Talk

No. 24 Trestles and stepladders

Prepare	Location? Distractions? Talk aids?
Reason	Trestles and stepladders are often misused and many accidents have occurred.
Why	Observe the rules and prevent a fall.
Outline	This talk will cover folding and adjustable trestles and stepladders.
General	Never use any trestle system if a fall could result in injury – older types do not enable the boards to be securely fixed or guard-rails to be fitted.

Folding/adjustable trestles

1. Generally, guard-rails cannot be fitted and so are only used where a fall cannot occur or it would not cause injury if it did.
2. Use for light work and short duration only.
3. If possible, use lightweight staging for the platforms. If normal scaffold boards are used, support at 1.2 metre centres.

Q: If using scaffold boards, what is the support spacing?

4. Before erecting a trestle, ensure ground is stable and level.
5. Ideally the platform will be at least 600 mm wide.

Q: Why are many trestle systems unsafe to use?

Modern trestle systems

1. Should be safe and stable in use, with safe ladder access, guard-rails and toe-boards fitted.
2. Similar in usage and appearance to a low level scaffold platform.
3. Ensure you have a tied ladder for access to the trestle.
4. Be aware of any weight restrictions before loading out with materials, etc.

Stepladders

1. Stepladders are banned on many sites.
2. Can a mobile scaffold tower or MEWP be used instead?
3. Check treads, stiles, hinges and restraining rope before use.
4. If the stepladder is damaged tell your supervisor and place it where no-one else can use it.
5. Only ever use on a firm, level base.
6. Don't work higher than two-thirds up stepladder (hand-hold).
7. Do not place boards between pairs of stepladders to form an improvised working platform – this is not a safe method of working at height.
8. Don't paint wooden steps, use clear varnish.
9. Don't over-reach or apply a sideways loading to stepladders – return to ground level and move them.
10. Ensure steps are fully extended before you go up.
11. Report all damage immediately.

Q: Why shouldn't you use boards on step treads?

- **Note to supervisor:** Now inform your workforce of the company policy regarding stepladders and trestles.

Do you have any questions for me?

Questions for you

Q: What safety features should you be looking for before using a modern type trestle system?

Q: Before using a stepladder, what should you check?

REMEMBER OBSERVE THE RULES AND PREVENT A FALL.

Further information

- *Construction Site Safety* (GE 700) – Module C2
- *Site Safety Simplified* (GE 706) – Section 5
- HSE – HSG150 Health and safety in construction



TRAINING AND DEVELOPMENT PLAN SHORT TRAINING SESSION ATTENDANCE SHEET

Title: Tool Box Talk No. 24 Trestles and stepladders	Date
Location	Start time
Duration (minutes)	End time
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Grant claim information

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ConstructionSkills Tool Box Talk

No. 27 Mobile scaffold towers

Prepare	Location? Distractions? Talk aids?
Reason	Mobile towers must be erected in accordance with the manufacturer's instructions and only by competent persons.
Why	Use a mobile tower correctly or you could find yourself seriously injured or even worse.
Outline	This talk will cover erection, use, stability and hazards.

Before erecting the tower

1. Check all components are in a good condition.
2. Check wheels for effective rotation.
3. Check brakes and locking devices work correctly.
4. Before erecting a tower on a suspended floor, ensure the bearing capacity of the floor is sufficient for the planned load.

Q: *What must be checked before erecting a tower on a suspended floor?*

Before use

1. Ensure the tower is vertical and square.
2. The wheels must be locked when the tower is not being moved.
3. If fitted, check that outriggers are set correctly and secured.
4. Ensure the platform is fully boarded out and guard-rails and toe-boards are fitted if a fall could result in serious injury.
5. The gap between toe-boards and mid guard-rails, and between mid and top guard-rails, must not exceed 470 mm.

Q: *When should toe-boards and guard-rails be fitted?*

Stability

1. Never climb up the outside of a tower – use the stairway or ladder on the inside.
2. Follow manufacturer's instructions on base to height ratio.
3. Be aware of danger of overturning tower if hoisting materials.
4. Tie the tower to a permanent structure where possible.
5. Don't move the tower if people or materials are still on the platform. Don't pull the tower along while standing on it.

Q: *How would you hoist materials on to a working platform?*

Hazards

1. Don't exceed manufacturer's SWL (safe working load) for the tower.
2. When moving towers, ensure there are no potholes, obstructions or overhead power lines in the way.
3. When working, ensure the access hatch is closed on the platform.
4. Never use ladders or steps on a scaffold platform as this will cause the tower to turn over.
5. Towers must only be used on firm surfaces. Where the ground is soft, adequate support must be provided.

Q: *What hazards must be considered when moving a tower?*

Do you have any questions for me?

Questions for you

Q: *Outline one pre-erection and one pre-use check.*

Q: *Outline one stability consideration and one hazard.*

REMEMBER AFTER MOVING A TOWER AND BEFORE USE, WHEELS MUST BE LOCKED.

Further information

- *Construction Site Safety* (GE 700) – Module C4
- *Site Safety Simplified* (GE 706) – Section 5



TRAINING AND DEVELOPMENT PLAN **SHORT TRAINING SESSION ATTENDANCE SHEET**

Title: Tool Box Talk No. 27 Mobile scaffold towers	Date
Location	Start time
Duration (minutes)	End time
Presenter's name	Presenter's signature

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Grant claim information

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No. attended	Duration	Total time	Employer reference

ConstructionSkills Tool Box Talk

No. 29 Safe working at height

Prepare	Location? Distractions? Talk aids?
Reason	Over 40% of major injuries on construction sites involve falls from heights.
Why	More than 50% of falls from height end in death. Don't end up as a statistic.
Outline	This talk will cover what you need to think about and do, before and during working at height.

Before working at height

1. Remember – ladders and stepladders are only for light work of a short duration where there is a low risk of falling.
2. Roof-edge barriers (or scaffolds) must be erected to prevent people and materials falling.
3. Access ladders must extend at least 1 metre above the stepping-off point and must be secured.
4. Fragile surfaces, such as asbestos cement roof sheets and some skylights, must be identified with signs and a safe system of working devised.
5. Ladders must be rested at the correct angle (1 unit out for 4 units up).

Q: What should be identified before work at height starts?

Hazards of working at height

1. If a fall could result in a serious injury, guard-rails and toe-boards must be erected.
2. Hazards resulting from adverse weather conditions must be anticipated, and suitable precautions taken.
3. Too much material on a working platform can make access and egress difficult.
4. Don't allow rubbish to accumulate as this is liable to cause accidents. Use a chute or lower materials properly.
5. Wet, windy or icy weather can seriously affect safety.

Q: Above what height must edge protection, toe-boards and guard-rails be erected?

Safe working on roofs

1. Only competent operatives may be used for roofing works.
2. A safe system of work must be devised and implemented where the roof would otherwise be liable to collapse under a person's weight.
3. If edge protection or a soft-landing system cannot be used, it may be necessary to use a harness and lanyard. A secure anchorage point and training will be necessary.
4. If using bitumen boilers, they require a drip tray.
5. Openings must be covered or guarded; if removed for the passage of workers or materials, replace immediately.

Q: When must crawling boards or ladders be used?

- **Note to supervisor:** Now inform the workforce of company policy on working at height, particularly the use of ladders.

Do you have any questions for me?

Questions for you

Q: How far should ladders extend above a stepping-off point?

REMEMBER THERE IS NO SAFE HEIGHT TO FALL FROM.

Further information

- *Construction Site Safety* (GE 700) – Module C6
- *Site Safety Simplified* (GE 706) – Section 5
- *Getting it Right at Height* (GE 710DVD)
- *A Head for Heights* (VID 071) (video)
- HSE – HSG33 Health and safety in roof work
- HSE – HSG150 Health and safety in construction



TRAINING AND DEVELOPMENT PLAN **SHORT TRAINING SESSION ATTENDANCE SHEET**

Title: Tool Box Talk No. 29 Safe working at height	Date
Location	Start time
Duration (minutes)	End time
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Grant claim information

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No. attended	Duration	Total time	Employer reference

ConstructionSkills Tool Box Talk

No. 37 Lifting equipment and operations

Prepare	Location? Distractions? Talk aids?
Reason	Lifting must be carried out in a safe manner.
Why	Unsafe lifting practices result in many accidents and injuries, including some fatalities, each year.
Outline	This talk will cover the procedures to follow to ensure that lifting operations are carried out in a safe manner.

Types of lifting equipment

1. Lifting equipment includes items of plant, such as forklift trucks and telescopic handlers, all mobile elevating work platforms and cranes, electric hoists, goods hoists, gin wheels, etc.
2. Slings, lifting beams, eye-bolts, etc. are lifting accessories.

General precautions

1. Risk assessments must be prepared for all lifting operations.
2. All lifting equipment and lifting accessories must be marked with its safe working load (SWL).
3. Lifting equipment and lifting accessories must not be used to move loads heavier than the marked SWL.
4. Lifting equipment must only be used by people who have been trained to do so.
5. Loads must only be slung by qualified persons.
6. Never stand under a suspended load.
7. If using lifting equipment, look for overhead obstructions such as power cables.
8. Ensure that lifting equipment has no obvious defects before using it.

Q: *What restriction is there on a load to be lifted by lifting equipment?*

Q: *Who is allowed to operate items of lifting equipment?*

Forklift trucks and telescopic handlers

1. Travel with the load in the lowest position and don't raise it whilst travelling.
2. Ensure the load is stable and secure.
3. Do not carry passengers unless a passenger seat is fitted.
4. Do not use to lift people unless suitably adapted.

Q: *How should the load be carried when travelling up a slope?*

Cranes

1. Use cranes to lift and lower loads vertically, don't drag loads.
2. A qualified 'appointed person' must supervise all lifting operations.
3. It may be necessary to attach tag lines to the load to stabilise it when lifted.
4. Beware of changing weather conditions or wind speed making lifting operations unsafe.

Q: *What checks would you carry out before use?*

Mobile elevating work platforms

1. Use only on firm, level ground.
2. Use outriggers or stabilisers where necessary.
3. Except for scissor lifts, users should wear a safety harness clipped to the correct anchorage point on the machine.

Do you have any questions for me?

Further information

- *Construction Site Safety* (GE 700) – Module D3
- *Site Safety Simplified* (GE 706) – Section 9
- HSE – INDG290 Simple guide to the Lifting Operations and Lifting Equipment Regulations 1998
- HSE – L113 Safe use of lifting equipment



TRAINING AND DEVELOPMENT PLAN SHORT TRAINING SESSION ATTENDANCE SHEET

Title: Tool Box Talk No. 37 Lifting equipment and operations	Date
Location	Start time
Duration (minutes)	End time
Presenter's name	Presenter's signature

Candidate's name	Name of candidate's employer	Candidate's signature

Grant claim information

Note: Claims can only be made for your employees or labour-only subcontractors

No. attended	Duration	Total time	Employer reference

ConstructionSkills Tool Box Talk

No. 41 Mobile plant

Prepare	Location? Distractions? Talk aids?
Reason	On many occasions, it has been proved that the use of mobile plant can be lethal in untrained hands.
Why	Safe operation of mobile plant requires competence, which is a combination of training and experience.
Outline	This talk will cover the dangers associated with mobile plant and how they can be overcome.

The dangers

1. Certain items of plant, such as dumpers and forklift trucks, are particularly prone to overturning if used unsafely.
2. Groundwork activities account for the greatest number of accidents involving mobile plant.
3. Many accidents are caused by plant being used unsafely by untrained, unauthorised operatives.
4. Many people are injured or killed by mobile plant that is reversing without the assistance of a signaller.
5. The very nature of some mobile plant means that the driver has only limited visibility from the driving position.

General precautions for drivers

1. Never be tempted to use mobile plant unless you have been properly trained, hold a CPCS card and have been authorised.
2. Operators of mobile plant should carry out daily pre-use checks of their vehicles and report any defects noticed.
3. In most cases, it will be necessary for a signaller to assist the driver during reversing.
4. Ideally, sites will be planned so that the need to reverse is kept to a minimum; if so, do not reverse unnecessarily.
5. Obey site speed limits and one-way systems.
6. When parked, ensure the parking brake is on and the wheels are chocked if necessary. Runaway plant causes accidents.
7. If mobile plant is left where children might congregate after working hours, ensure it is immobilised and in a safe state.
8. Use stop-blocks where provided to prevent over-running.
9. Mobile plant should only be refuelled at designated refuelling points by operatives who have been trained to do so.
10. Don't carry passengers unless the plant is designed to do so.
11. If necessary, vacate the driver's seat during loading/unloading.

Q: List the common points in the daily pre-use check.

General precautions for others

1. On some large sites, the routes of mobile plant and private vehicles may cross; make sure you know who has priority.
2. Keep well way from operating mobile plant; on well organised sites, mobile plant and pedestrians are segregated.
3. If your safety is at risk from any item of mobile plant when you are doing your job, stop work and report it to your supervisor.
4. Be aware of other hazards such as noise; you may need PPE such as hearing protectors or ear plugs because of plant working near you.

REMEMBER MOBILE PLANT IS THERE TO HELP YOU, DON'T LET IT HARM YOU.

Do you have any questions for me?

Questions for you

Q: What actions should you take when leaving mobile plant overnight near a public highway?

Q: How, if at all, would you expect traffic to be controlled where a haul road crosses a site access road?

Further information

- Construction Site Safety (GE 700) – Module D6
- Site Safety Simplified (GE 706) – Section 10
- HSE – HSG144 The safe use of vehicles on construction sites



**TRAINING AND DEVELOPMENT PLAN
SHORT TRAINING SESSION ATTENDANCE SHEET**

Title: Tool Box Talk No. 41 Mobile plant	Date
Location	Start time
Duration (minutes)	End time
Presenter's name	Presenter's signature

Candidate's name	Name of candidate's employer	Candidate's signature

Grant claim information

Note: Claims can only be made for your employees or labour-only subcontractors

No. attended	Duration	Total time	Employer reference

ConstructionSkills Tool Box Talk

No. 47 Buried services

Prepare	Location? Distractions? Talk aids?
Reason	Every year, many people are injured and some killed due to contact with buried services.
Why	70,000 instances of damage and 150 injuries per year show there is room for improvement.
Outline	This talk will cover gas, water mains, sewers and colour coding for buried services.

Gas

1. Check the gas company plans before digging.
 2. Dig carefully by hand to establish the location of pipes.
 3. Mark all known pipes.
 4. Remember gas is flammable and explosive.
- Q: *What must you do before digging?***
5. At the slightest hint of gas escape, leave the area and do not smoke. Call the gas company and emergency services.
 6. Don't drop tools on to the mains, it may cause cracking to pipes.
 7. Modern, smaller diameter house mains are often plastic – don't confuse them with electric cables.
 8. Follow the gas company specifications for back-filling.
- Q: *If you noticed gas escaping, what would you do?***

Water mains

1. Trace the line of the main by trial pits and mark all known pipes.
 2. Burst pipes can fill an excavation quickly. If damaged, call the water company.
 3. Remember, water at high pressure could be dangerous.
 4. Ladder access should be provided in the excavation.
- Q: *How would you find the line of the water main?***
5. Don't leave a length of pipe unsupported.
- Q: *What must you remember with unsupported pipes?***

Sewers

1. There is a severe health risk if a foul sewer is fractured – leave the excavation and report it to the water company.
 2. Wear PPE due to risk of contamination from sewage. Wash your hands before eating, drinking or smoking.
 3. If you break a stormwater sewer and rain is falling, vacate the excavation as flooding may occur at any time.
 4. Read the tool box talk on Weil's disease (No. 12). If you feel unwell, report to your doctor.
- Q: *What hazards are there when working on sewers?***

Colour-coding system for buried services

- | | |
|------------------|--------------------|
| 1. Black or red | Electricity |
| 2. Blue | Water |
| 3. Yellow | Gas |
| 4. Grey or white | Telecommunications |
| 5. Green | Cable television |

Do you have any questions for me?

Questions for you

- Q: *What are the colour codings for buried services?***
- Q: *Before back-filling, what must you find out?***

REMEMBER ALL BURIED SERVICES HAVE THE POTENTIAL TO CAUSE INJURY OR ILLNESS.

Further information

- Construction Site Safety (GE 700) – Module E2
- Site Safety Simplified (GE 706) – Section 7
- HSE – HSG47 Avoiding danger from underground services



**TRAINING AND DEVELOPMENT PLAN
SHORT TRAINING SESSION ATTENDANCE SHEET**

Title: Tool Box Talk No. 47 Buried services	Date
Location	Start time
Duration (minutes)	End time
Presenter's name	Presenter's signature

Candidate's name	Name of candidate's employer	Candidate's signature

Grant claim information
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ConstructionSkills Tool Box Talk

No. 50 Excavations

Prepare	Location? Distractions? Talk aids?
Reason	People die in trenches – the vast majority of fatal accidents occur in trenches which are less than 1.5 metres deep.
Why	A cubic metre of earth can weigh over 1.5 tonnes – the only body able to support that is a dead one.
Outline	This talk will cover precautions and accidents.

Precautions

1. Before digging check for services – water, gas, electric – always treat as live until proven otherwise.
2. Excavations must be supported or battered back where necessary to prevent collapse.
3. Use ladders for access and egress, do not climb supports.
4. Fit edge protection around excavations to protect the general public, regardless of depth of excavation.
5. Keep soil heaps back at least the depth of the excavation from the edge.

Q: *What must you check for prior to excavating?*

6. Ensure stop blocks are fitted when a vehicle or plant is tipping into an excavation and that they are guided by a signaller.
7. Wear your safety helmet at all times.
8. Never throw tools or materials into an excavation, pass them hand-to-hand or lower them on a rope if too deep to pass.
9. Excavations must be checked by a competent person prior to entry at the start of every shift.
10. The results of at least one inspection in every seven day period must be recorded.

Q: *What precautions must be taken when dumpers are tipping spoil back into a trench?*

Causes of excavation accidents

1. Shoring not installed or trench not battered back.
 2. Operatives trying to jump across the excavation.
 3. Unauthorised removal or alteration of supports or braces.
 4. Operatives working beyond the unsupported areas of the excavation.
- #### **Q: *What is the safe means of access to a deep excavation?***
5. Sides of excavation becoming unstable after periods of hot, dry weather or heavy rainfall.
 6. Materials falling into excavations due to being placed too close to the edge.
 7. Vehicles driving into excavations – lack of stop-blocks.
 8. People, including members of the public, falling into trenches because edge protection or lighting was not fitted.
 9. Operatives not using the ladder for access or egress.
 10. The accumulation of heavier-than-air gases.
 11. Heavy plant or vehicles parked close to the excavation.

Q: *What should be fitted to stop vehicles driving into excavations?*

Do you have any questions for me?

Questions for you

Q: *When should edge protection be fitted?*

REMEMBER A CUBIC METRE OF EARTH CAN WEIGH 1.5 TONNES – IF YOU GET IT WRONG THE CONSEQUENCES COULD BE FATAL.

Further information

- *Construction Site Safety* (GE 700) – Modules E2 and E5
- *Site Safety Simplified* (GE 706) – Section 7
- HSE – CIS8 (REV1) Safety in excavations
- HSE – HSG185 Health and safety in excavations



**TRAINING AND DEVELOPMENT PLAN
SHORT TRAINING SESSION ATTENDANCE SHEET**

Title: Tool Box Talk No. 50 Excavations	Date
Location	Start time
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TOOL BOX TALK – TIPPING TRAILER

Prepare Location? Distractions? Talk aids?

Reason On many occasions, it has been proved that the use of tipping trailers can be lethal in untrained hands.

Why Safe operation of tipping trailers requires competence, which is a combination of training and experience.

Outline This talk will cover the dangers associated with tipping trailers and how they can be overcome.

The dangers

1. Incorrect use or mishandling of the machine can endanger:
 - 1.1. Life and Limb of the operator, other persons or animals within the vicinity of the machine.
 - 1.2. The machine and other material assets of the owner or third persons.
 - 1.3. The performance of the machine.
 - 1.4. Youths under the age of 16 must not operate this implement.
2. **General precautions for users**
 - 2.1. It is recommended that two persons (minimum) are required to remove and re-fit trailer sides and optional grain sides.
 - 2.2. The maximum recommended speed that the trailer can be operated at is 30 k/hr.
 - 2.3. CAUTION The hydraulic system is under high pressure.
 - 2.4. Ensure that only high-pressure hoses are used to connect supply to the trailers hydraulic cylinder. Check hoses regularly and renew any that are damaged or worn.
 - 2.5. Before working on the hydraulics lower the trailer, release the pressure from the system and stop the tractor engine.
 - 2.6. CAUTION Hydraulic oil forced out under pressure can break the skin and cause severe injury. In the event of a hydraulic oil leak stop the tractor flow immediately. DO NOT PUT HANDS NEAR A LEAKING PIPE
 - 2.7. NEVER attach to a tractor which would be rendered unstable when the trailer is operated at its full capacity. Take note of the maximum load permissible on tractor pick up hitch. The unloaded weight and maximum load will be listed in owner's manual.
 - 2.8. Take extra care when operating machinery on sloping ground. The tractor trailer combination is at particular risk when turning down slopes. NEVER operate on ground where there is a risk of the tractor becoming unstable.
 - 2.9. When detaching the trailer from the tractor always ensure that it is stable and safely positioned on a level surface.
 - 2.10. The attaching and detaching of the trailer to a tractor must be carried out by only one operator. There should not be any other people in the vicinity of the trailer or in the tractor.
 - 2.11. Before operation make yourself familiar with all elements and controls of the trailer as well as their functions.
 - 2.12. Before operation inspect the area around you.
3. **General precautions for others**
 - 3.1. A SAFE DISTANCE OF AT LEAST 10M MUST BE OBSERVED BY ANYONE WITHIN THE VICINITY OF THE TRAILER.
 - 3.2. Keep children away.
 - 3.3. All visitors and unauthorised persons should be kept well away from work area.



TRAINING AND DEVELOPMENT PLAN SHORT TRAINING SESSION ATTENDANCE SHEET

Title: Tool Box Talk Tipping Trailer	Date
Location	Start time
Duration (minutes)	End time
Presenter's name	Presenter's signature

Candidate's name	Name of candidate's employer	Candidate's signature

Grant claim information

Note: Claims can only be made for your employees or labour-only subcontractors

No. attended	Duration	Total time	Employer reference

TOOL BOX TALK - WOOD CHIPPERS

Prepare Location? Distractions? Talk aids?

Reason These machines are particularly dangerous in the hands of untrained and inexperienced operators.

Why Even trained users have had many accidents resulting in severe laceration of limbs and fingers.

Outline This talk will cover preparation for use, refuelling and safe safe working practices to be followed when operating a wood chipper.

You can use this leaflet, along with the manufacturer's handbook, as part of the risk assessment process to help identify the controls to put in place when using a wood chipper.

Ensure you also assess the effect of the site and the weather as well as following this guidance.

All operators must have had appropriate training in how to operate the machine and how to carry out the tasks required.

1. Personal protective equipment (PPE)

1.1. Use the following PPE:

- 1.1.1. A safety helmet, complying with EN 397, if identified as required during risk assessment.
- 1.1.2. Eye protection (a mesh visor complying with EN 1731 or safety glasses to EN 166).
- 1.1.3. Hearing protection (complying with EN 352) where the noise level exceeds
- 1.1.4. 85 dB(A) (see HSE pocket card INDG363 Noise: Don't lose your hearing!).
- 1.1.5. Gloves with long, close-fitting cuffs that can be tucked into sleeves.
- 1.1.6. Safety boots with good grip and ankle support (complying with EN 345-1).
- 1.1.7. Non-slag outer clothing appropriate to the prevailing weather conditions.
- 1.1.8. High-visibility clothing (complying with EN 471) should be worn when risk assessment identifies that it is needed.
- 1.2. Each person should carry a personal first-aid kit including a large wound dressing (see HSE leaflet INDG214 First aid at work: Your questions answered).
- 1.3. Hand-cleaning material such as waterless skin cleanser or soap, water and paper towels should be readily available.

2. The machine

- 2.1. Before working with a machine, check it has been properly converted from any transport mode.
- 2.2. Ensure guards for dangerous parts (eg belts, pulleys, shafts etc) are secure and undamaged.
- 2.3. Ensure protective devices, such as the infeed control bar (incorporating the stopping device), are working correctly (see AIS38 Power-fed mobile wood chippers: Operator protection at infeed chutes).
- 2.4. Ensure any lock for the chipping components has been disengaged.
- 2.5. Ensure the infeed hopper is clear of any materials.
- 2.6. Ensure any noise warning signs are in place.
- 2.7. For machines driven by a power take-off (PTO) shaft, before starting ensure:
- 2.8. the PTO shaft is fitted with a suitable guard, complying with EN 1152, that
- 2.9. encloses the shaft along its full length from tractor to machine;
 - 2.9.1. the guard is correctly fitted and in effective working order (see AIS40 Power
 - 2.9.2. take-offs and power take-off drive shafts);
 - 2.9.3. the PTO speed is suitable for the machine.

3. Selecting the work area

- 3.1. Select as firm a surface as possible and stabilise the machine.
- 3.2. Ensure ventilation is adequate and any exhaust fumes are vented into open air if working in an enclosed space.
- 3.3. Where appropriate, if the chipper is detached from the tow vehicle, apply the handbrake and, if necessary, chock the wheels.
- 3.4. On all reasonably foreseeable approaches to the worksite, erect warning and prohibition signs conforming to the Health and Safety (Safety Signs and Signals)
- 3.5. Regulations 1996, indicating a hazardous worksite and that unauthorised access is prohibited. In areas of very high public access, additional controls (eg barrier tape, barriers, extra manning) may be required.
- 3.6. Ensure all operations near to highways are adequately signed with the appropriate notices as specified in the Department of Transport's Safety at street works and road works: A Code of Practice.
- 3.7. Ensure the discharge chute is positioned to prevent chips being blown onto the highway during roadside operations or in any direction where they can affect colleagues or members of the public.
- 3.8. Position the chipper so that operators do not have to stand on embankments/slopes when feeding material into the machine.

4. Emergency procedures

- 4.1. Ensure a designated and responsible person knows the daily work programme and agree with them a suitable emergency contact procedure. Where reasonably practicable use a mobile phone or radio and a pre-arranged call-in system.
- 4.2. Ensure the operators can provide the emergency services with enough detail for them to be found in the event of an accident, eg the grid reference, the distance from the main road, the type of access (suitable for car/four-wheel drive/emergency service vehicles). In urban areas street names and postal codes are essential. Know the location details before they are needed in an emergency.

5. Operating the machine

- 5.1. Make sure the cuffs of gloves are close fitting or tucked into your sleeves to stop them being caught on material as it is fed into the chipper.
- 5.2. Set the engine speed (and set the stress control if fitted), to obtain optimum performance.
- 5.3. Check that material to be chipped is free from stones, metal and foreign objects.
- 5.4. Stand to one side of the infeed rollers to avoid being hit by ejected material.
- 5.5. Let material go as soon as it is engaged in the infeed rollers or chipping components.
- 5.6. Use a push-stick at least 1.5 m long for both short produce and for the last piece of produce to be chipped (see Figure 1).
- 5.7. Do not put any part of your body (including hands or feet) into the infeed hopper while the machine is running.
- 5.8. Always follow the manufacturer's instructions for dealing with any blockages on the machine.
- 5.9. Keep the area of ground in front of the infeed hopper free from debris to prevent any tripping hazard.
- 5.10. Remove the engine start key when the machine is left unattended or when undertaking any maintenance.

6. Fuelling

- 6.1. Stop the engine and, if necessary, allow to cool before refuelling.
- 6.2. Petrol vapour is invisible and can travel considerable distances from spillage or fuelling sites. Maintain a safe distance from all sources of ignition at all times.
- 6.3. Store fuel to avoid vapour ignition from any source such as fires, people smoking or the wood chipper. Select a site shaded from direct sunlight and away from watercourses and drains.
- 6.4. Containers must be clearly labelled and have securely fitting caps. Plastic containers must be designed and approved for use with petrol or diesel fuel.
- 6.5. Replace the fuel cap securely.
- 6.6. Keep fuel from contacting the skin. If fuel gets into the eyes wash out with sterile water immediately and seek medical advice as soon as possible.

7. Maintenance

- 7.1. Ensure maintenance is carried out in accordance with the manufacturer's handbook.
- 7.2. Check the chipping components and knives each day for damage and wear.
- 7.3. Wear gloves when handling the knives.
- 7.4. Before working on the knives, confirm that the engine is switched off, the start key removed, and the chipping component is stationary.
- 7.5. Before opening any guard/cover or reaching into the infeed hopper or discharge chutes make sure the engine is switched off, the start key removed and the dangerous moving parts have come to a complete standstill.
- 7.6. Change or reverse knives if they become damaged or blunt. Ensure they are scrapped when worn to the minimum size specified by the manufacturer.
- 7.7. When new/sharpened knives are fitted, ensure there is the recommended clearance between the knives and the anvil.

8. Moving the machine

- 8.1. Stop the engine and remove the start/stop key.
- 8.2. Lock the chipping components.
- 8.3. Secure the infeed hopper and the chip discharge chute in the transport position.
- 8.4. Check the towing bracket, attach, then lift and secure the jockey wheel.
- 8.5. Connect the electrics and safety chain(s) to the towing vehicle.
- 8.6. Ensure the load is secure and people are in a safe position before moving off.

9. Further reading

- 9.1. Noise: Don't lose your hearing! INDG363(rev2)
- 9.2. HSE Books 2012 www.hse.gov.uk/pubns/indg363.htm
- 9.3. First aid at work: Your questions answered Leaflet INDG214(rev1)
- 9.4. HSE Books 2009 www.hse.gov.uk/pubns/indg214.htm
- 9.5. Safety signs and signals. The Health and Safety (Safety Signs and Signals)
- 9.6. Regulations 1996. Guidance on Regulations L64 (Second edition)
- 9.7. HSE Books 2009 ISBN 978 0 7176 6359 0 www.hse.gov.uk/pubns/books/l64.htm
- 9.8. Power-fed mobile wood chippers: Operator protection at infeed chutes AIS38
- 9.9. HSE 2013 www.hse.gov.uk/pubns/ais38.htm
- 9.10. Power take-offs and power take-off drive shafts AIS40
- 9.11. HSE Books 2012 www.hse.gov.uk/pubns/ais40.htm
- 9.12. Treework webpages: www.hse.gov.uk/treework



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