# TOOL BOX TALKS

The Health and Safety at work act 1974 re-stated the principles of accident prevention set out in previous legislation and established procedures for promoting and enforcing safe and healthy conditions.

It made the possibility of prosecution of individuals more likely for acts, or omissions, which put others at risk and some recent cases demonstrate the willingness of enforcing authorities to proceed with such cases.

One such case resulted in an individual being fined £2,000 where he had inspected and passed as suitable a scaffold which was subsequently blown down by wind.

One of the basic requirements of the Health and Safety at work act is the provision of information, instruction. Training and Information and new legislation about to be introduces will reinforce this.

These document is aimed at increasing safety awareness in this European Year of safety, Hygiene and Health Protection at work.

The talks are designed to be given by Foreman to employees ranging from small gangs to groups of 14-20 on a weekly basis.

With the greater emphasis on training by enforcing authorities, it is important that records of training are maintained and top this end a record of those attending, the topic covered, and any feedback must be provided on the separate sheets supplied.

The topics that follow will also assist sub-contractors in carrying out their legal obligations to their own employees, but where specialist contractors are.

# ADVICE TO FOREMAN/SUPERVISOR

Study your company's Health and Safety policy which lays down the organisation and arrangements for the health and safety of those in your care and others who may be affected by your work activity.

As the site supervisor you are the link between senior management and operatives and you have a direct responsibility for ensuring that the company's Health and Safety policy is fully implemented by yourself and all those under your control.

When giving instructions to operatives, you have an obligation to ensure that:

a) There is a safe means of access to all places of work on site including canteen and welfare facilities.

b) The work place is safe.

c) There is a safe system of work.

d) All planet and equipment is safe and suitable.

e) The operatives has received adequate information, training and/or instruction to enable him to do the job safely.

That where protective clothing or equipment is needed, that it is available, suitable, issued and used correctly

In nearly all accidents unsafe conditions and/or unsafe acts play a prominent part.

## Unsafe Conditions Include:

- Wrong or faulty equipment is used
- Equipment is not properly guarded
- Unsafe clothing, footwear, eye protection
- Ignorance of or ignoring safety precautions
- Improper ventilation
- Unsafe design or construction
- Improper storage of LPG (Liquefied Petroleum Gases)
- Defective electrical installation
- Improper shoring

## Unsafe Conditions with Longer Term Effects:

- Exposure to hazardous substances
- Exposure to excessive noise levels

## Unsafe Acts Include:

- Operating plant or equipment without authority
- Operating at unsafe speeds
- Making safety devices inoperable
- Using unsafe equipment
- Poor loading or overloading
- Being in an unsafe position
- Working on moving or dangerous machinery/equipment
- Engaging in horseplay
- Failure to use personal protective equipment

The difference between a near miss and an accident involving injury or damage, or both, is only a matter of degree (or luck). Accordingly, you should encourage operatives to report all near misses and they should be investigated and reported to superiors.

Dangerous occurrences (which are legally defined) must be investigated, reported to HSE and remedial action taken.

Every injury, however slight, should be reported, first aid treatments given, and an entry made in the accident book B1510.

Any information arising from incidents on other site (our own or others) which is passed to you should be issued to operatives to avoid similar incidents happening again.

# CONSTRUCTION SITE BASIC SAFETY CHECKLIST

The following procedures are designed to assist site agents, Contractors, supervisors, General foreman, Foreman, Charge hands and all those who in any way control sites to make these safer places of work.

- Is it safe

  Pinpoint unsafe situations or practices and take steps to correct them before anyone gets hurt.

- Safe Access

  Are roads, gangways, passageways, hoists, stairs and scaffolds free from obstruction and properly lit?

  Are openings and edges properly guarded?

- Ladders

  Are ladders of sound metal? In good condition? Properly angled? Secured? Rise above landing stage to the require height with proper hand holds?

- Scaffolds

  Have these been properly designed for the task? Have they been erected by competent scaffolders? Fitted with hand rails, toe boards and brick guards as appropriate?

  Has a handing over certificate been provided? What arrangements exist for weekly statutory inspection and recording results?

  What steps have been taken to ensure scaffold is not overloaded?

- Plant & Transport

  These must be maintained in good repair, driven safely by trained and competent personnel and properly loaded.

  Emphasis should be placed on proper tipping, particularly near excavations, travelling with raised bodies and buckets.

  Do not allow unauthorised use of plant or machinery not allow anyone to ride in dangerous positions.

- Machinery

  Are all dangerous parts of machinery guarded especially hidden projecting shaft ends?

- Electricity

  Check that apparatus, cables, wires and connections are sound. Ensure connections re made by competent electricians and certificates issued. Reduced voltage should be used where possible.

  Arrangements for working under overhead and precautions for underground cables are given in Toolbox Talk No. 18

- Manual handling

  Avoid the need for manual handling wherever possible by using mechanical means.

  Where mechanical means are impractical, ensure loads are handled and lifted correctly, that gloves are used and training in proper methods of lifting is given.

- Trespassers

  Is the site secure against children and thieves? Have ladders been removed or blocked off? Is plant immobilised and other potential hazards safeguarded?

- Protective clothing/equipment

  Is this required? If so, does it meet minimum legal requirements and is it used? Check atmosphere in confined spaces and provide appropriate respiratory protection if required.

- Fire Risks

  Have high risk areas been identified and suitably protected? Are adequate facilities available to fight fires? Is suitable storage provided for flammable liquids, compressed gases and other combustible materials?

- C.O.S.H.H

  Have assessments been carried out for all substance hazardous to health, safe system set up, substitution introduced where possible and training provided where necessary?

- Noise

  Have noise assessments been carried out and warning notice displays where 90dBa TWA is exceeded? Is ear protection available and worn? Where practicable have machines/tools been silenced or acoustic barriers erected?

  Note: The ambient noise levels on a construction site is the level to be considered in terms of protection and not necessarily the noise from a particular piece of equipment.

- Welfare

  Are all welfare facilities, toilets, washbasins and mess huts clean, tidy and hygienic? Can wet clothing be dried? Is there a supply of clean drinking water marked as such? Are there appropriate first aids facilities?

- General

  Are all those required to operate plant, machinery, power tools or other equipment trained and/or instructed in the correct techniques and procedures? Are new starters given induction training?

# TOOLBOX TALKS

## Number 1: General Duties

- He must take care for his own health and safety and the health and safety of others who may be affected by what he does or fails to do.
- So, you can see by failing to report something which could give rise to an accident you could be guilty of an offence.
- You must co-operate with your employer to enable him to fulfil his legal obligation.
- You must not recklessly interfere with, or misuse, anything which your employer is legally bound to provide for your protection.
- Your employer is required to provide a safe system of work and you must comply with any rules he sets down to achieve this.
- Where your employer provides protective clothing or equipment as, for example, ear protection, helmets etc. you must take good care of such equipment, report any faults in it, get a replacement if it wears out and keep it clean and serviceable at all times.

# TOOLBOX TALKS

## Number 2: Advice to employees

- Study your company's Safety Policy which sets out and explains the arrangements for your health, safety and welfare.
- Plan your part in keeping the site and welfare facilities clean, tidy and safe.
- Watch out for warning signs and notices and obey these.
- Always keep alert, particularly in the vicinity of mobile plant.
- Never attempt to operate plant or machinery unless you have been trained and authorised to do so.
- Never ride on machines which do not have a passenger seat. It is illegal to do so.
- Never interfere with ladders or alter scaffolding unless you are authorised to do so.
- Never throw anything from scaffolding or other high points.
- Do not take short cuts – do not improvise.
- If an object is too heavy to lift – get help.
- Report any defects in ladders, scaffolding, plant and machinery or any unsafe conditions or practices to your supervisor.
- Report all injuries, however slight, and make sure it is entered into the Accident Book.
- Report near misses, damage or other dangerous incidents.
- If you're in doubt about any aspects of your work, ask the Foreman.
- Construction sites make ideal playgrounds – do your bit to discourage children from getting onto site.
- Ensure the tools you use are safely stored at the end of the day.
- Dispose of rubbish and newspapers every day to avoid fire hazards.
- The site is your home for up to 10 hours a day. Treat it with respect and it won't cause you any problem or an injury, or worse cost you your life.

# TOOLBOX TALKS

## Number 3: Responsibilities

- The health and safety at Work Act, the Construction Regulations, C.O.S.H.H, Noise at work Regulations, Head Protection Regulations and many more pieces of legislation place responsibilities on everyone.
- When these responsibilities are not carried out, people get hurt and killed and others can be prosecuted.
- On average 3 people are killed every week on construction sites, thousands more are seriously injured.
- In less serious cases workers loose wages.
- When accidents happen, your employer can face fines of thousands of pounds. Hefty fines can put the future of companies in doubt and affect jobs.
- If you work on scaffolding provided by other, your Foreman must ensure it is safe. If you notice anything wrong – REPORT IT!
- If you require a ladder or steps, don't borrow on being used by someone else without telling him.
- If you remove barriers to allow materials to enter, replace them when you have finished. If you strike shuttering make sure openings are guarded. Don't leave a trap for others.

# TOOLBOX TALKS

## Number 4: Housekeeping

- A tidy site is a safe site.
- Treat your site with the same importance you treat your home.
- Don’t rely on others to clean up – do your own.
- Tools left lying around on scaffolding, access ways or where they can fall on someone, or become damaged are easily tided away.
- Stack materials safely and neatly. If dismantling anything – stack components neatly and ensure nails in timber are removed or bent over. Damaged timber should be stored separately for subsequent disposal.
- All rubbish should be placed in skips or other areas where it won’t become a fire hazard. It is easier to contain a fire should one occur.
- Replace damaged or worn out tools and don’t leave them lying around causing tripping hazards.
- When putting clothing to dry make sure in does not come into contact with heaters.
- If you find any loose items on walkways or scaffolding, tidy them away, they just might fall on you or someone else later.

# TOOLBOX TALKS

## Number 5: Personal Hints

- Do not take chances – It's not worth it.
- Carry out instructions – Don't deviate.
- If you do not know – Ask someone who does.
- Use the correct tools/equipment – Correctly.
- Keep an eye out for young, inexperienced workers.
- Keep the site clean and tidy and encourage others to do the same.
- Do not encourage in horseplay or distract others.
- Wear the protective clothing/equipment issued to you.
- Do not attempt to start or operate plant/machinery unless authorised to do so.
- Watch out for and obey all safety signs and notices.
- Use only tools you are trained to use.
- Have all injuries, however slight properly attended to.
- Be a team player – play your part in safety.

# TOOLBOX TALKS

## Number 6: Working Dress

- Always wear the right clothing for the job.
- Keep clothing clean – Dirty clothing in unhygienic and can cause dermatitis.
- Avid loose ends – Cuffs and legs.
- If protective clothing is supplied – Wear it.
- Gloves protect hands from dermatitis and jagged objects.
- Jewellery – Ring and chains are dangerous near machinery.
- Safety footwear saves toes and feet – Nails can strike upwards.
- Change contaminated clothing immediately and wash skin thoroughly with soap and water.
- Be properly addressed – Avoid this postcode.

# TOOLBOX TALKS

## Number 7: Eye Protection

- A tiny fragment in your eye can blind you, cause you to fall, loose your balance or cause damage to others if you are using a tool at the time.
- Do not use a dirty handkerchief or rag to remove something from your eye – First Aid is the answer.
- Certain types of work require you, by law, to wear eye protection – Using a Hilti gun, chipping, scaling, using chemicals, make sure you are protected.
- Do not look at welding unless your eyes are protected, or a screen is in place.
- Do not enter areas requiring protection unless you have eye protection.
- Take care of your eye protection and have it replaced immediately if it becomes damaged.
- Do not use harsh materials to clean eye protection – Your vision may be affected?
- Always remember eye protection is for your eyes – Not around your neck or on top of your helmet.
- Eye protectors can be replaced – Your eyes can't.

LOOK AFTER YOUR EYES – THEY'LL SEE YOU THROUGH LIFE!

# TOOLBOX TALKS

## Number 8: Head Protection

- The number of head injuries has reduced greatly since head protection regulations were introduced, but some people still need persuading.
- The wearing of helmets is now a legal requirement. Don't be sent home for not complying.
- Most head injuries can be prevented, or their severity greatly reduced by wearing a helmet.
- Scratches and abrasions can be prevented by wearing a helmet in tight corners.
- Some spray paints can damage the shell of the helmet – It is better to use a sticky label if you want to customise your helmet.
- Do not alter the harness – This can reduce its safety factor.
- Do not drill holes in the shell – This reduces its overall effectiveness.

REMEMBER – KEEP YOUR HEAD – BY WEARING YOUR HELMET!

# TOOLBOX TALKS

## Number 9: Protect Your Feet

- We all need to stand on our own feet. Foot injury often prevents this.
- Penetrating injuries, crushed toes and feet and twisted ankles are very common in construction.
- Most foot injuries can be avoided by wearing sensible footwear.
- Steel toe caps prevent crushing or loss of toes.
- Steel mid-soles prevent penetrating injuries from reinforcing and nails left in timber.
- Robust boots provide strength for ankles and avoid sprains and twists.
- Where wellingtons are used for concreting, wipe off any concrete from inside to avoid cement burns. These can cripple.
- Your feet were made for walking – Walk and work safely.

# TOOLBOX TALKS

## Number 10: Noise

- The Noise at Work Regulations require your employer to measure the noise levels of the plant or equipment you are using or working close to.
- More and more you will see signs warning you that you must use hearing protection in certain areas.
- Exposure to load noises can, over a period of time, cause you to go deaf. In some cases, people suffer from “ringing” in the ears which effects their social life and ability to sleep.
- Noise damage in permanent and cannot be reversed.
- If you must shout, at a metre distance, to make yourself heard your hearing is being damaged.
- Always wear hearing protection in noisy areas or “hearing protection zones” where warning signs are displayed.
- Make sure either ear plugs, or muffs are a good fit and that the seals on muffs are not damaged.
- Always ensure when fitting or removing plugs that your hands are clean.
- Clean re-usable plugs regularly.
- If using muffs of the head band type – Do not try to increase the pressure by bending the band.
- Ensure muffs are worn the right way around.
- You are legally required to keep ear protection in a clean and serviceable condition and to get a replacement for damaged items.
- Protect your hearing – Not being able to hear warning shouts could put you at risk.
- If you work with compressed air tools – Make sure mufflers are fitted, air lines do not leak, and compressors access covers are closed.

DON’T LOOSE YOUR SENSE OF HEARING!

# TOOLBOX TALKS

## Number 11: Skin Care

- Any or all of the following can cause problems to the skin:
    - Pitch, Tar and Bitumen
    - Dust from brick, Stone and Plaster
    - Cement
    - Paints, Varnishes, Lacquers and Stains
    - Certain Woods, Especially exotic hard woods
    - Certain epoxy resins and mortars
    - Acrylic and Formaldehyde resins
    - Chromates in primer pain and in cements
    - Organic solvents
    - Petrol, White Spirit, Thinners and diesel
    - Acids and alkalis
- Some people suffer skin disorders more than others. Their skin becomes sensitised and sometimes being near a certain substance can cause problems for these people, even though they may not come directly into contact with it.
- The most common skin problem is dermatitis.
- Hands, forearms and legs are most commonly affected.
- If one is exposed to dust, mist or fumes, the face, neck and chest can be affected.
- Some types of dermatitis can cause swelling of the eyes and lips.
- If not treated dermatitis can become a serious problem and is very unsightly.
- C.O.S.H.H Regulations require your employer to warn you about certain substances.
- You should take the following precautions:
    - Avoid skin contact with substances.
    - Wear protective clothing – gloves – eye protection.
    - Keep your skin clean – apply barrier cream before work.
    - Do not eat, smoke or drink in the working area.
    - Get first aid treatment for any cuts or scratches and keep them covered.
    - Do not use harsh substances such as thinners or turpentine or diesel to clean your hands.
    - Do not let adhesives or glues harden on your skin.
    - If you know you are allergic to any substances, tell your foreman.
- Dermatitis can be avoided – by avoiding substances that de-fat your skin and leave it open to contact with harmful substances.

# TOOLBOX TALKS

## Number 12: Drugs & Alcohol Control

- There is no place on construction site for drug and alcohol abuse.
- Alcohol gives a great deal of pleasure to millions when taken during social events.
- Alcohol is a depressant and suppresses brain function. You need all your brain power when working on a construction site. You have to work with dangerous machinery and from heights.
- It takes one hour for half a pint of beer or larger to leave your body. A heavy drinking bout the night before may leave you over the limit for the following morning.
- 50% of all drivers killed were over the legal limit. Some people killed on construction site were also found to be over the limit.
- 35% of all fatal accidents have alcohol as a factor.
- Drugs give relief to millions when prescribed by a General Practitioner, but some can have side effects which may affect your judgement or performance.
    - If you are on any prescribed drugs, tell your Foreman.
    - If you are on any illegal drugs – we'll tell you.

# TOOLBOX TALKS

## Number 13: Fire

- Make sure you know what to do in the event of fire.
- Know which extinguisher to use – Small fires tackled quickly may never become large ones.
- If you tackle a fire – do not take chances. Make sure your escape route is clear.
- Always keep fire doors clear and unobstructed.
- Ensure fire extinguishers are easy to reach and not obstructed.
- Do not let paper, oily rags or rubbish accumulate.
- Do not hang clothing over, or too close, to heaters.
- Do not smoke in forbidden areas.
- Use proper containers for flammable liquids – Not open tins or buckets.
- If handling flammable liquids do so away from sources of ignition.
- If using blowlamps, torches or welding/burning gear, check about an hour after work stops for signs of smouldering.
- Asphalt pots, crucibles, soldering irons and gas rings should be on non-combustible stands.
- When not in use switch off all electrical equipment.
- Gas fires must have automatic cut-outs.
- Wall mounted heaters should have fire protective surrounds.
- All heaters should be guarded.

PLAN YOUR ATTACK BEFORE THE FIRE, YOU WON'T HAVE TIME IF ONE STARTS!

# TOOLBOX TALKS

## Number 14: Manual Handling

- Injuries to the back, feet and hands frequently result from lifting.
- Shortly your employer will be required to look at all tasks that involve manual handling and advise you on the following:
    - The weight of everything to be lifted, the best method of lifting, how to prevent injury.
- You can prevent cuts, scratches and puncture wounds to your hands by wearing gloves.
- You can prevent your feet and toes from crushing injuries by wearing safety boots.
- Back injury can be prevented by keeping your back straight and bending at your knees and keeping your arms close to your body.
- Test the weight by lifting a few inches before taking the full strain.
- See that there are no obstructions in your path.
- Take your position with feet hip width apart and your leading foot slightly ahead pointing in the direction you intend to travel.
- Get a secure grip on the load.
- Do not carry a load which obscures your vision.
- Stack heavier items at lower levels.
- When lifting to a height, do it in stages.

# TOOLBOX TALKS

## Number 15: Stacking

- Many accidents occur when materials have to be removed from stacks particularly by hand. Care during initial stacking will reduce these.
- Safe stacking is made safer by wearing gloves and safety footwear.
- Stack only in authorised areas – Never obstruct doorways, fire points or evacuation routes.
- Stack on level surfaces – Provide parking if necessary.
- Never stack higher than 3 times the minimum base width.
- Materials stacked by machine may have to be removed by hand – Bear this in mind when placing.
- Sheet metals should be stacked flat – Protect sharp corners – If stacking vertically use racks.
- If assisting in moving materials by machine, keep hands well clear.
- Do not overload pallets – they may collapse. Excess weight against walls may overload them. Floors too can be overloaded – If in doubt ask.
- Small pipes and tubes should be stored in bins, racks or stillage's.
- Large diameter pipes and tubes should be choked at the base and subsequent cross bearers – avoid pyramid they can roll and cause injury.
- Block/Bricks/Pelleted materials should be placed on level surfaces. Reduce height as they may later be moved by hand.
- If banding in broken or damaged, do not stack other materials on top.
- Leave sufficient space between different materials for subsequent re-handling by either hand or mechanical means.
- Small timbers are best placed in rack. Joists and larger timbers should be placed on bearers with cross packing used to level the stack. Stack different lengths apart.
- Large pre-fabricated panels – floors/walls must be stacked flat or secured to specially designed racks.
- In all cases remove materials in reverse of their original placing.

# TOOLBOX TALKS

## Number 16: Hand Tools

- Always use the proper tool for the job – Don't improvise.
- Use the spanner to fit the nut – When using adjustable spanners take extra care – They can easily slip.
- Never use an extension piece to gain extra leverage. It can spread the jaws and cause slipping.
- Damaged or worn out tools should be returned to stores and new tools used.
- Chisels and punches with mushroom heads must be ground down to prevent hammers slipping off and metal fragments flying.
- Files must have handles fitted.
- Never use a file as a lever – It can shatter easily.
- Ensure hammer shafts are sound secure – Split handles should be replaced – not taped or wired up.
- Never use screwdrivers as chisels – They become damaged, handles shatter and they become useless as a screwdriver.
- Protect sharp tools when storing them. Open Stanley knives in pockets are lethal.

USE ALL YOUR TOOLS SAFELY!

# TOOLBOX TALKS

## Number 17: Portable Electric Tools

- Portable electric tools are handy, usually light and easy to use. They can also be lethal.
- Before you use an electric tool, check that it is earthed, unless it is an approved type not requiring earthing.
- Make sure the casing is undamaged. If it is don't use it.
- Make sure cables, connections and plugs are sound and properly wired.
- Only 110v rated tools are permitted on construction sites, unless special arrangements are made.
- Ensure cables are long enough to reach the workplace without straining.
- Protect cables from snagging, being trodden on or run over by site plant.
- Keep cables off the floor to avoid tripping yourself and others.
- If a tool fails, get a qualified person to check and/or repair it – Do not make makeshift repairs.
- Never stand on a damp or wet surface when using electrical tools.
- Use tools for their designated purpose only.
- Never connect electric tools to light sockets.
- Ensure accessories are suitable and in good condition.
- Disconnect tools when not in use and on multi-disciplinary site take to stores during breaks and at the end of the shift.
- A plan of regular inspection and maintenance should be in place for all electric hand tools.

THE TOOL FOR THE JOB IS JUST THE JOB FOR THE TOOL!

# TOOLBOX TALKS

## Number 18: Electricity on Site

- Electricity is such an integral part of daily life that we can be forgiven for forgetting how dangerous it is.
- Correct use puts no one at risk but misuse or disregard can cause at least severe burns, at worst death.
- The risks increase at work because equipment is used in adverse conditions.
- Plant and machinery can come in contact with overhead or underground cables, with serious consequences.
- Goal posts must be erected where tall plant passes under overhead cables.
- Underground cables must be exposed and marked if work is to be carried out near them.
- Avoid taking risks by adopting these simple precautions:
    - Always check for damage, defective or suspect cables, plugs and sockets.
    - Ensure you use the correct power supply.
    - Ensure cables reach where you want them without straining.
    - If a cable snags – don't tug it – go and free it and take steps to avoid further snagging.
    - Ensure the correct fuse is fitted – If in doubt ask your electrician.
    - Do not substitute a fuse with one of a higher rating.
    - Make sure all emergency stops are working properly and regularly tested.
- Only qualified electricians should carry out maintenance, repairs, and installations of electrical equipment.
- Only purpose made connectors should be used for joints.
- Never plug into a lighting socket.
- Never overload a socket with adapters. One tool per socket is recommended.
- Keep away from flammable vapours and gases when using portable electric tools.
- Report all defective tools.
- Ensure hands are dry when pugging in or unplugging had tools.
- Worn, frayed or kinked cables should be replaced – by your electrician.
- Avoid use of electric tools in wet conditions.
- You can ruin the life of any tool by misuse – Don't let it ruin your life.

DON'T SHORT CUT – IT CAN BE A SHOCK TO THE SYSTEM!

# TOOLBOX TALKS

## Number 19: Soldering Safety

- Soldering operations can put the solder and others at risk.
- Risks associated with soldering are:
    - Welding fumes
    - Infra-red, visible light
    - Hot metal and sparks can damage eyes and burn the skin
    - Sparks and hot slag can start fires.
- Eye protection must be worn where hot metal and/or sparks are possible.
- Flame resistant materials, usually of leather, is required for the hands, body and legs.
- Soldering of all metals causes fumes which can damage the respiratory system. Some metals coated with galvanise, lead or other toxic materials can cause severe damage to the body as a whole.
- The use of compressed gases in soldering can give rise to explosions and fires.
- Keep spare cylinders away from the work area and stored in a secure area – Cage or compound.
- Always close valves when not in use or when being moved.
- Do not lift cylinders by their valves.
- Do not allow cylinders to become heated.
- Do not let oil or grease come into contact with valves or threads on cylinders.
- If you discover a leak, extinguish all lights, move cylinder into the open and notify the supplier. If cylinder cannot be moved move flammable material away.
- If a cylinder becomes ignited try to remove it to the open, call the fire brigade and if a water hose is available train water on the cylinder to cool it – Do not go too close or take chances.
- Never touch live metal parts with bare skin or wet clothing.
- Ensure cables, electrode holders and cable connectors are in good condition – Check for wear or damage regularly.
- Do not connect earth leads to electrical circuits or pipes containing flammable liquids.
- Check if a “hot work” permit is required before starting work.
- Clear away all combustible material from the area before starting work.
- Check for smouldering materials sometimes (about 1 hour) after end of shift.
- Have a suitable fire extinguisher(s) close to work area. Type will depend on material being welding and gases being used – CO2 and dry powder types are most suitable.

# TOOLBOX TALKS

## Number 20: Ladder Safety

- Falls from ladders are a very common occurrence on site.
- Falls from ladders occur either as a result of the ladder slipping or the person mounting it doing something wrong.
- Some causes of falls from ladders are:

| | |
|---|---|
| Foot slipping on rung | Carrying tools/materials |
| Missed footing | Obstruction part way up the ladder |
| Lost footing | Struck by falling material |
| Overbalanced | Jumped off to avoid hazard |
| Overreached | Rung broke |

- Ensure ladder is long enough to reach 3' 6" above landing stage.
- Ensure ladder cannot slip.
- Ensure ladder is at the correct angle 1 foot out to the 4 feet up (300mm to 1200mm)
- Ensure ladder is tied at the top – Ladders can also be secured at the bottom with stakes and ties to prevent slipping outwards and sideways.
- Check condition before use – Report any defects.
- Never use a makeshift ladder.
- Do not use ladders with splits or cracks.
- There are different grades of ladder – use the right one.
- Do not overreach from a ladder – better to move it.
- Do not stand a ladder on an unsteady base, e.g. barrel, blocks, cases etc.
- Do not overload a ladder or support it with its bottom rung on a blank.
- Do not use a ladder that is too short.
- A system of regular checking should be in operation.
- Store ladders out of weather – Sunlight/storms – When not in use.
- Step-ladders can also be dangerous. Check for sound treads, stiles, hinges and restraining ropes between legs.
- If working from step-ladders, ensure base is level.
- Step-ladders can easily overbalance – Never work more than two thirds way up.
- Do not place boards between threads on steps to form a working platform – treads are not designed to be load bearing except for people.

USE LADDERS SAFELY – DON'T BE FALL GUY!

# TOOLBOX TALKS

## Number 21: Do's & Don'ts on Scaffolding

- Erecting, altering and dismantling scaffolding is a specialist job and you will not be involved unless you are a scaffolder.
- You may have to work on or off scaffolding and should appreciate these points.
- Do not climb onto scaffolding unless you are a scaffolder.
- If you have got to go onto scaffolding, use the access ladder.
- Do not alter or remove any component parts. Get a scaffolder to do this. He knows what to do without affecting the safety or stability of the scaffolding.
- If you move a barrier to allow materials in, replace it when you have finished.
- Do not carry out any digging near scaffolding.
- Do not remove boards from any platform.
- Do report any gaps or traps in scaffolding.
- Do not stack materials in centres of bays or above handrail height.
- Do not leave hand tools lying around on platforms.
- If you require a working platform and there isn't one, construct one properly on trestles, bandstands or scaffolding – Do not place boards on blocks, bricks or oil drum.
- Do not leave a section of scaffolding platform without handrails or toe boards, if you have to remove an access ladder. Better still get a scaffolder to move the ladder and make good the opening.

# TOOLBOX TALKS

## Number 23: Scaffold Towers

- Towers are ideal for gaining access to certain areas of work, particularly where the work is strung out.
- Towers must be erected strictly to manufacturer's instructions and assembly instructions should always be on site.
- Firm level ground is required – If not, adequate support must be provided.
- The height of the tower should never be more than 3 times the shortest base for external use – 3 ½ times is allowed for internal work.
- Safe loading instructions must not be exceeded.
- When working on the platform do not engage in pulling or pushing operations. The tower can overbalance.
- Do not pull heavy items up the side of the tower.
- Towers have a variety of means of access. They can form an integral part of the scaffold. Form part of the bracing. Be inclined inside the tower or form part of the end frame.
- Do not climb up the outside of the tower. This causes eccentric loading and can be dangerous.
- Where the distance between ground level and working platform exceeded 30 feet, an intermediate platform (minimum 3 boards) with guard-rails must be provided.
- Working platforms must be fully boarded with handrails and toe boards.
- Mobile towers must only have one working platform.
- Never move a tower by pulling along while on the platform. It should be pushed from near the bottom horizontally.
- When moving a tower ensure there are no obstructions, including overhead cables and that the surface is level.
- If a tower with outriggers is used, the outriggers will have to be raised and the height of the tower reduced to 2 ½ items minimum base dimensions.
- After moving a tower and before use. Always lock the wheels.

# TOOLBOX TALKS

## Number 24: Openings and Edges

- More than 50% of all accidents involve people falling from structures or materials falling onto people.
- Where a person can fall more than 2 meters (6’ 6”) from a place of work, the law requires protection to be provided.
- Scaffolds – All working platforms must be provided with handrails, toe-boards and fixed ladder.
- Floors – Protection must be provided to floor edges, lift openings, stairways and duct openings.
- Roofs – Edge protection must be provided at eaves and gables.
- Excavations require barriers or guard-rails – The amount of strength of barriers will depend on the depth of the excavation.
    - Generally, excavations up to 1.2 meters (4 feet) can be protected by simple barriers.
    - Excavations deeper that 6’ 6” will require timber or scaffolding barriers.
- Working alongside water will require guard-rails and life-belts and work over water will require a rescue boat.
- Manholes and road gullies, even temporary ones, need to be strong to withstand Lorries and other site transport. If broken, they become hazards.
- If protection barriers have to be moved for access of materials, replace them immediately.
- At times it is not practicable to provide barriers. In these circumstances lift lines, safety harnesses or nets must be provided.