Work Equipment

This section aims to make you think about hazards that may arise from work equipment, considerations when selection and purchasing new equipment, how to prevent injuries and carrying out associated assessments, and finally routine monitoring and maintenance.

Work equipment includes machinery; tools or equipment used by an employee at work e.g. hammers, knives, machinery, lifting equipment, computers, photocopiers, ladders, fork-lift trucks and even your kettle!

All such work equipment comes under the requirements of the Provision and Use of Work Equipment Regulations 1998. Lifting equipment also has to meet the Lifting Operations and Lifting Equipment Regulations 1998. The regulations apply to employers and the self-employed.

Hazards From Work Equipment

Work equipment can cause injury in five main ways:-

- **Entrapment** – where parts of the body could be caught in parts of equipment.
- **Impact** – where the body could be crushed by moving parts or by items being processed.
- **Contact** – where the body could touch sharp edges, hot surfaces or abrasive surfaces.
- **Entanglement** – where hair, clothing or jewellery could get caught in parts of a machine.
- **Ejection** – where parts of equipment or materials being worked on could fly off and hit the body.

Selecting and Purchasing Equipment

The safest and most suitable work equipment should be selected for the work to be done. Good design and construction can ensure the safety of machines by:

- Providing suitable operating controls which are easy to see and use and which prevent the equipment being turned on accidentally.
- Having a suitable emergency stop control.
- Failing to safe when something goes wrong.
- Minimising risks during maintenance and cleaning as well as normal operation.

During the selection and purchase stage make sure that you obtain technical information and compare this to other equipment; check that the equipment has a CE mark (i.e. complies with European standards for design and manufacture); that you satisfy yourself you have obtained all the relevant safety information and that you ensure that there will be adequate training provided in the use of the work equipment.

Risk Assessments

A risk assessment must be carried out before any equipment is installed or used. The installation must be carried out by a competent and suitably trained person to ensure the stability and safe operation of the equipment. Environmental factors such as lighting and ventilation need to be considered. There must be enough space to prevent the user of the work equipment being bumped or distracted.

Preventing Injuries

There are a number of ways to prevent injury and make the use of work equipment safer. These are often called the controls and they should be considered in the priority given:-

- **Remove the hazard** – a task could be redesigned to eliminate the use of work equipment. Often hazards are eliminated at the design stage of work equipment.
- **Substitution** – provide a safer alternative i.e. different work equipment.
- Isolation – move work equipment to an area where people are not exposed to the potential hazards.
- **Enclosure** – dangerous parts of machinery can be made inaccessible. A whole machine could be enclosed by a perimeter fence.
- **Guarding** – where hazards cannot be avoided, guards must be provided to prevent people getting close to any dangerous parts of equipment. Guards can be fixed over the dangerous part. Adjustable guards may be appropriate to allow for the item being worked on. Whenever possible guards should be interlocked so that piece of work equipment will not operate unless the guard is in place.
- Barriers may be used, or sensor devices, which prevent people getting close to a dangerous piece of machinery.
- The operation of the work equipment could be done in such a way that the operator's hands are away from any dangerous moving parts.
- **Safe systems of work** – the work equipment must be used for its proper purpose and only as intended by the manufacturer. Safe working procedures must be established for all work equipment. Your risk assessment should help to identify these.
- The environment around the work equipment must be safe e.g. no spillages or obstacles.
- Provision, instruction, training and authorisation – everyone who uses work equipment must be made aware of the potential hazards by a combination of information, instruction and training.
- No one must operate a machine or clean or maintain it, unless they are trained and authorised to do so. Supervision is a means of checking that the work equipment is safe and that operators are following the safe working procedures.
- Any rules must be made clear, such as not wearing loose clothing, ties and jewellery, and that long hair is tied back; not allowing the consumption of alcohol and non-prescription drugs and certain prescription drugs. Employees must follow instructions and not tamper with any guard or other safety device. Any defects or faults need to be reported.

- **Personal protective equipment (PPE)** – the provision of PPE is a last resort and is only to be used where a potential hazard remains after considering all the other possible controls, e.g. safety goggles when using any work equipment where bits of the material could be ejected. The selection of appropriate PPE is important and ensuring that it is used properly, stored properly when not in use and maintained.

- **Maintenance, inspection and testing** – work equipment must be maintained in an efficient state, in good working order and repair. Inspection and testing are appropriate where your risk assessment has identified a significant risk to the operator of the work equipment.

- **Young People** – Where young people are employed and it may be necessary for them to use different types of work equipment specific assessment should be made of the possible additional risks that may be present to that young person. Any machinery that is classed as dangerous machinery such as woodworking machinery or certain types of kitchen machinery must not be used by persons under the age of 18 unless it forms part of their training and they are under direct supervision.

Mobile work Equipment (MWE)

There are specific requirements within relating to the potential for rolling-over or overturning of MWE e.g. fork lift trucks, and the precautions to be taken, such as the fitting of restraining systems (i.e. seat belts and safety cages).

Lifting Equipment

There are specific regulations that deal with the examination and inspection of all lifting equipment.

Any work equipment for lifting persons must be examined and tested every 6 months and a report kept of the inspection (e.g. passenger lift, tail lift on vehicle). For lifting equipment used to carry goods only, this needs to be done every 12 months e.g. fork lift truck (where there is no cage for lifting people).

Checklist

- Have you identified the hazards associated with all you work equipment?
- Is the equipment used suitable for its intended task?
- Are all guards fitted and used and effective?
- Have risk assessments been carried out?
- Have staff been trained in how to use the equipment?
- Are warning notices required for equipment i.e. noise, electric shock and required PPE?
- Have you planned preventative maintenance programmes in place and are they effective?
- Are records available from maintenance and inspection?