

Work Equipment

The Provision and Use of Work Equipment Regulations 1998 (PUWER 98) require risks to people's health and safety, from equipment that they use at work, to be prevented or controlled. The primary objective of PUWER 98 is to ensure that work equipment should not result in health and safety risks, regardless of its age, condition or origin.

In addition to the requirements of PUWER 98, lifting equipment is also subject to the requirements of the Lifting Operations and Lifting Equipment Regulations 1998.

What does PUWER do?

In general terms, the Regulations require that equipment provided for use at work is:

- suitable for the intended use;
- safe for use, maintained in a safe condition and, in certain circumstances, inspected to ensure this remains the case;
- used only by people who have received adequate information, instruction and training; and
- accompanied by suitable safety measures, eg protective devices, markings, warnings.

What equipment is covered by the Regulations?

Generally, **any equipment** which is **used by an employee at work** is covered, for example hammers, knives, ladders, drilling machines, printing presses, circular saws, photocopiers, lifting equipment (including lifts), dumper trucks and motor vehicles, papermaking machines.

Work equipment must meet **all** the requirements of the Regulations from 5 December 1998. However, requirements relating to certain aspects of mobile work equipment **do not** apply to such equipment (provided for use in the business before 5 December 1998) until 5 December 2002.

Examples of uses of equipment which are covered by the Regulations include starting or stopping the equipment, repairing, modifying, maintaining, servicing, cleaning and transporting.

Who do the Regulations apply to?

The Regs apply to any employers or self-employed persons who provide equipment for use at work, or control of the use of equipment.

They cover places where the HSW Act applies - these include factories, offshore installations, offices, shops, hospitals, hotels, places of entertainment etc. PUWER 98 also applies in common parts of shared buildings and temporary places of work such as construction sites. The Regs also cover equipment used by people working from home.

What do the Regulations require?

Employers must **ensure** that the work equipment they provide meets the requirements of PUWER 98. In doing so, they should ensure that it is:

- **suitable** for use, and for the purpose and conditions in which it is used;
- **maintained** in a safe condition for use so that people's health and safety is not at risk; and
- **inspected** in certain circumstances to ensure that it is, and continues to be, safe for use. Any inspection should be carried out by a competent person (this could be an employee if they have the necessary competence to perform the task) and a record kept until the next inspection.

Employers should also **ensure** that **risks**, created by the use of the equipment, **are eliminated where possible or controlled by:**

- taking appropriate **'hardware' measures**, eg providing suitable guards, protection devices, markings and warning devices, system control devices (such as emergency stop buttons) and personal protective equipment; and
- taking appropriate **'software' measures** such as following safe systems of work (eg ensuring maintenance is only performed when equipment is shut down etc), and providing adequate information, instruction and training.

A combination of these measures may be necessary depending on the requirements of the work, the assessment of the risks involved, and the practicability of such measures.

Employers need to **ensure** that people using work equipment, and people supervising or managing that use, have received **adequate training, instruction and information** for the particular equipment.

Suitability (Regulation 4)

Employers must ensure that any equipment provided for work is constructed or adapted so as to be suitable for its intended purpose.

Maintenance (Regulation 5)

Work equipment must be maintained in an efficient state, in efficient working order, in good repair.

Inspection (Regulation 6)

Where the safety of work equipment depends on the installation conditions, the work equipment must be inspected after installation and before it is used for the first time. In addition, work equipment which is exposed to conditions which may cause deterioration must be inspected at suitable intervals. Records of all inspections

must be made and kept until the next inspection has been completed and recorded.

Specific Risks (Regulation 7)

Employers must ensure that where the work equipment poses a specific risk to health and safety, the use and maintenance of such equipment is restricted to designated persons who have received adequate training.

Information and Instructions; Training (Regulations 8 and 9)

The Regs require employers to make available to all persons using work equipment adequate health and safety information, and where appropriate written instructions on the use of such equipment, this should include the manufacturers'/suppliers' instruction manuals. The employer must also provide adequate health and safety training in the use of the work equipment, including any associated risks and necessary precautions.

Adequate information and training, and written instructions where appropriate, must also be made available to persons who supervise or manage the use of work equipment.

The information and instructions must be comprehensible and include:

- the conditions and methods of use of the equipment;
- foreseeable abnormal situations and
- any necessary actions, and any conclusions drawn from experience in the use of the equipment.

Conformity with EC Requirements (Regulation 10)

Employers will have to ensure that any work equipment, when first provided for use, has been made to the requirements set down in the relevant EC "product" Directive, as implemented by appropriate UK legislation. The CE mark is meant to indicate compliance with the "product" Directives, but employers will need to perform their own checks to confirm this. This duty applies to work equipment provided for use on or after 1 January 1993.

Dangerous Parts of Machinery (Regulation 11)

Employers must take measures to prevent access to dangerous parts of machinery or any rotating stock-bars, or stop the movement of any dangerous machinery or rotating stock-bars before any part of a person enters a danger zone.

All guards, protection devices and protective appliances must: be suitable for their intended purpose; be of good construction, sound material and adequate strength; be maintained in an efficient state, in efficient working order and in good repair; not increase any risks to health and safety, and not unduly restrict the view of the operating cycle where such a view is necessary.

Guards and protection devices must not be easily by-passed or disabled; be situated at a sufficient distance from the danger zone and be constructed/adapted to allow replacement, repair or maintenance work, but only in the

area where such work is necessary, and where possible without dismantling the guards or protective devices.

Protection Against Specified Hazards (Regulation 12)

Employers must ensure appropriate measures are taken to prevent, or adequately control, exposure to any of the "specified hazards" arising from the use of work equipment. Such measures must be by means other than personal protective equipment (PPE) or information, instruction and training.

The "specified hazards" are: falling or ejected articles or substances; component rupture or disintegration, equipment overheating or catching fire and unintended or premature discharges or explosions.

High or Very Low Temperature (Regulation 13)

Employers must ensure that work equipment, components or any articles or substances which are at high or very low temperatures are protected so as to prevent burn, scald or sear injuries through contact with the offending surface. The guidance suggests various engineering controls in order to prevent such risks.

Controls and Control Systems (Regulations 14 to 18)

Employers must ensure, where appropriate, that start and operating controls (ie controls that change speed, pressure, etc) are fitted to work equipment, and that where these controls are fitted, they can only be operated by a deliberate action. The normal operation of automatic devices is exempt from this requirement (regulation 14).

Work equipment must also be provided with readily accessible stop controls, where appropriate, that will bring the equipment to a safe condition in a safe manner. (regulation 15).

Employers must also ensure, again where appropriate, that work equipment is provided with readily accessible emergency stop controls, unless these controls are unnecessary by the nature of the hazard and the time required to bring the equipment to a complete stop as a result of activating a normal stop control. Emergency stop controls must have priority over any normal stop controls.

The guidance emphasises that emergency stop controls should be provided where other safeguards are inadequate to prevent the risk of some irregular event — they are not substitutes for safeguarding and should never be used to stop the equipment in normal work routines (regulation 16).

Where controls required under regulations 14, 15 and 16 are fitted to work equipment then such controls must be clearly visible and identifiable including appropriate marking if necessary, and in such a position so as not to create risks to the health and safety of the control operator (regulation 17).

Where persons are in a place of danger due to the starting or stopping of work equipment, employers must take appropriate measures to ensure such persons have sufficient time and means to avoid the danger.

Regulation 18 requires employers to ensure, so far as is reasonably practicable, that all work equipment control systems are safe, ie the operation of a control system does not increase any risks to health and safety.

Isolation From Sources of Energy (Regulation 19)

Employers must ensure that work equipment is provided with a clearly identifiable and readily accessible means of isolating it from its energy source, where appropriate. Reconnection of the equipment to the energy source must not expose persons using the equipment to any risks to their health and safety.

Stability (Regulation 20)

Employers must ensure all work equipment is stabilised where necessary to protect health and safety. The guidance expands on this duty by suggesting that equipment liable to fall over, collapse or overturn must be fixed to the ground, stabilised, tied, fastened or clamped as appropriate.

Lighting (Regulation 21)

Suitable and sufficient lighting must be provided, which takes account of the operations carried out on a particular piece of equipment.

Maintenance Operations (Regulation 22)

This regulation places a duty on employers to ensure, so far as is reasonably practicable, that work equipment is constructed or adapted to allow maintenance work that involves a risk to health and safety to be carried out while the equipment is shut down or inactive. Where this is not possible the maintenance operations should be carried out in such a way that the person doing the maintenance work is not exposed to health and safety risks and appropriate measures should be taken for their protection.

The guidance suggests the provision of temporary guards, limiting the movement, power or speed of the equipment, etc and the provision of PPE, instruction and supervision, as ways of preventing or reducing risks in situations where the equipment cannot be stopped for maintenance.

Markings and Warnings (Regulations 23 and 24)

These two regulations place duties on employers to ensure work equipment has appropriate and clearly visible health and safety markings, and that any appropriate health and safety warning or warning devices are incorporated.

Employees Carried on Mobile Work Equipment (Regulation 25)

Mobile work equipment must not be used to carry employees unless it is suitable for that purpose and incorporates measures to reduce any risks to safety (including risks from wheels or tracks), as low as is reasonably practicable.

Rolling Over of Work Equipment (Regulation 26)

Risks to employees riding on mobile work equipment from its rolling over must be minimised by:

- (a) stabilising the work equipment
- (b) incorporating structures that restrict work equipment from doing anything other than roll on its side, or that provide sufficient clearance to anyone being carried if it does roll over further
- (c) providing any device offering comparable protection.

Fork lift trucks which comply with (b) above are exempt from the requirements of this regulation.

Suitable restraining systems must be fitted to prevent anyone being carried on mobile work equipment being crushed in the event of the work equipment rolling over.

Non-compliance with this regulation is permitted where:

- compliance would increase safety risks
- it would not be possible to operate mobile work equipment as a result of complying, or
- it is not reasonably practicable in relation to items of work equipment provided for use prior to 5 December 1998.

Overturning of Fork Lift Trucks (Regulation 27)

Fork lift trucks used to carry employees must be adapted or equipped to reduce, as low as is reasonably practicable, the risk to the employees' safety from overturning.

Self-propelled Work Equipment (Regulation 28)

Where there are risks to safety from self-propelled work equipment which is in motion, there must be:

- (a) facilities for preventing unauthorised start up
- (b) appropriate facilities for minimising the consequences of collisions in situations where more than one item of rail mounted work equipment is in motion at the same time
- (c) devices for braking and stopping
- (d) emergency facilities, operated by readily accessible controls or automatic systems, capable of braking or stopping the work equipment in the event of the main braking or stopping devices failing
- (e) devices for improving the driver's field of vision, so far as is reasonably practicable, where the original field of vision is inadequate to ensure safety
- (f) appropriate lighting on the vehicle, if it is used at night or in dark places (it must also be otherwise safe for such use)
- (g) appropriate fire fighting equipment, if the self-propelled work equipment carries or tows anything that

may represent a fire hazard and is liable to endanger employees — this requirement is not necessary if fire fighting equipment is kept sufficiently close to the work equipment.

Remote-controlled Self-propelled Work Equipment (Regulation 29)

Where there is a risk to safety from remote-controlled self-propelled work equipment, such work equipment must stop automatically when it leaves its control range, and have devices to prevent risks from crushing or impact (unless other devices are capable of preventing this).

Drive Shafts (Regulation 30)

In situations where there is a risk to safety from the seizure of a drive shaft between mobile work equipment and any accessories or objects being towed, there must be means for preventing such seizures, or, if this is not possible, measures must be taken to avoid any adverse effects on employees' safety. In addition, there must be a system for safeguarding the transmission shafts on mobile work equipment, where such shafts could become soiled or damaged through contact with the ground.

How do the Regulations relate to other health and safety legislation?

The requirements of the Regulations need to be considered alongside other health and safety law. For example, section 2 of the HSW Act requires all employers to ensure, so far as is reasonably practicable, the health, safety and welfare of all their employees. Similarly, the Management Regs contain important duties relating to the carrying out of a risk assessment to identify measures that you can take to eliminate, or reduce, the risks presented by the particular hazards in your workplace

Employers are expected to keep themselves up-to-date with industry guidance, and should, for example, consult that produced by PIAC and PABIAC with regard to guarding and the use of machines in the printing, paper and board industry. (See section on Further Information.)

Action Points

1. Ensure you are consulted **in good time** on the introduction of new machines before they are brought into use, to ensure that they meet the standards set in these Regs.
2. Use your rights to consultation to be involved in the risk assessment to ensure the employer implements protective measures, such as guards, to adequately prevent risk of injury.
3. Check that employers are meeting their duties under the HSW Act to provide safe systems of work, and that these are reviewed to ensure that they are still relevant and account for changes in the working practices.
4. Check that all workers are given proper health and safety training and information, including manufacturers manuals, on the use of any work equipment, and on the risks it presents to them.
5. Ask to see the maintenance record which should show that all work equipment is maintained in an

efficient state, efficient working order and in good repair.

6. Use these Regs to renew the standards of existing work equipment, such as guillotines (see Guillotine Safety).

Further information

Safe use of work equipment Provision and Use of Work Equipment. Provision and Use of Work Equipment Regulations 1998. Approved Code of Practice and Guidance L22 HSE Books 1998 ISBN 0 7176 1626 6