PUWER Guidance

SPECTRA

The Provision and Use of Work Equipment Regulations (PUWER) 1998 are concerned with all aspects of work equipment used by employees in the workplace.

PUWER applies to all types of work equipment and includes appliances, apparatus, plant and tools (from the simplest hand tools to complex machinery).

PUWER does not consider the following to be work equipment: Livestock, Substances, Structural items (buildings) or a Private vehicle.

PUWER applies to all employers and self-employed individuals who use work equipment in their business activities.

This includes small and medium-sized enterprises (SMEs) operating in various industries such as manufacturing, construction, agriculture, and services.

PUWER Guidance

SPECTRA

Key Requirements

Suitability of Work Equipment:

Every employer must ensure that all work equipment provided to employees is suitable for its intended use, considering factors such as the initial integrity of the equipment, the place it will be used, the nature of the work, the environment, and any specific hazards present.

Integrity

Equipment should be safe by design, its construction or adaptation for use. ‘Home-made’ or ‘in-house’ tools will often not comply as they are often made from scrap materials. For example, making your own steel brackets and fixing them to a wall without any calculations or load testing would not be compliant.

Placement

Equipment should be provided that is suitable for the location it is used, whether these areas are cold, hot, wet, or explosive environments. Consideration should be given to where the equipment is being used for example, a diesel generator should not be used in a sealed room without ventilation, nor a scissor lift, without the appropriate design to withstand temperatures of -20° or lower, deployed in a freezer store.

Purpose

The equipment should suit the task it is used for - a milk crate should be used to contain milk bottles, not be used as a hop-up for a plasterer to skim a ceiling. A ladder should not be used for a lengthy task, a mobile tower scaffold or podium should be used in preference.

PUWER Guidance

SPECTRA

Maintenance

Maintenance regimes should be considered before the selection and purchase of equipment. Items of equipment may require a simple maintenance regime, such as sharpening, or cleaning. However, some specialised equipment may need specialist attention of the manufacturer or vendor and require either a replacement being hired or the organisation suffering the temporary non-deployment of the equipment which may have negative effects on production.

Maintenance operations should be able to be carried out while equipment is shut down or can be conducted without exposing the maintenance engineers to a risk to their health or safety. For example, minor adjustments or lubrication should be able to be applied from outside of the guard or without removal of panels.

Although health and safety laws already deal with the need for maintenance, it is further prescribed under PUWER which focuses on safety critical components such as guards, ventilation systems and pressure relief valves which must be maintained so that they can perform their safety functions at all times. Equipment should not be allowed to deteriorate to a low level before repairs are applied. This may not only be potentially dangerous but could cost more in replacing a whole unit rather than selected components, or suffer a total breakdown of the machine, which could stop production.

Other specialist legislation requires statutory periods of inspection and examination, for example, hoists, and other lifting equipment, pressure vessels, and local exhaust ventilation. Documentation must be obtained as proof of regular maintenance and include a dated record of inspection and confirmation that deficiencies have been remedied. For equipment under regular use, simple checklists can be used by a competent person. For example, a three-monthly ladder check, a weekly vehicle, check, or a daily a pre-use check of a cherry picker.

Specific risks

Where a new piece of equipment could potentially produce specific risks to health or safety, the employer must ensure the equipment can only be operated by those with the skill and authority to use it. Any repairs or maintenance are strictly restricted to those who been trained and designated to conduct those procedures.

A new or upgraded item of equipment may appear similar and its operation may be deemed obvious to the existing operators. It is therefore important to guard against this over-enthusiasm and ensure the operators take a reasonable period of time to thoroughly familiarise themselves with the equipment before using it. For example, operatives who are skilled in using scissor lifts on large builds, such as a stadium or distribution warehouse, may have to deploy several different types of MEWP during the term of the project. Although many of the controls have standardised layouts and decals, a slight deviation may cause a mis-operation, which could result in a catastrophic injury. It is therefore essential that operators are given adequate familiarisation training before switching to the new appliance.

Suitability of the equipment

Employers must ensure that work equipment is used only for operations for which, and on the conditions for which it is suitable.

For example, a long screwdriver could be used as a lever rather than using a jemmy or crowbar. The results of using the wrong tool could cause injury. For example, the screwdriver shaft could snap and potentially cut the hand of the operative.

Equipment may be used that is simply not suitable for the task. For example, using a lifting sling designed for a narrow load and deployed for a wide load is dangerous, because the resulting angles will result in the sling becoming overloaded due to the forces acting upon it. Equipment must be suitable, by design, construction or adaptation for the work it is provided to do. If employers choose to modify equipment, then they must ensure it is still suitable for the intended purpose.

Standards of manufacture

When providing work equipment for use in the workplace, it should be designed and manufactured so that it conforms to all relevant standards. Work equipment not only has to comply with specific health and safety legislation such as Electricity at Work Regulations, and British Standards, they must also comply with European Community legislation, which is still in place, (even after the UK left the European Union). Many health and safety laws must still comply with existing EC directives such as the Supply of Machinery, (Safety) Regulations (SMSR). PUWER reg 10 still requires that new equipment conforms to European Community requirements and prohibits the use of equipment that does not comply. Compliance is usually demonstrated by the attachment of a CE Mark or label and an accompanying certificate of EC declaration of conformity.

Installation, location and use

Work equipment must be installed located and used in such a manner as to reduce risks to users and of other workers nearby. Employers must ensure there is sufficient space between moving parts of work equipment and fixed or moving parts in its close environment and that all forms of energy and substances used or produced can be supplied or removed in a safe manner.

Equipment should be selected that provides appropriate controls of energy forms, such as electricity, pneumatics, hydraulics and steam. There must be controls that enable adjustment or limitation such as valves or switches, as well as venting, draining and earthing. Equipment should be selected that enables the removal of kinetic energy in a safe manner, by the provision of interlocks or brakes.

Inspection

Regulation 6 of PUWER states that an inspection of work equipment should be conducted where there is a significant risk from incorrect installation or the reinstallation of the equipment. For example, the incorrect design or erection of scaffolding could lead to collapse when loaded under normal use or the reinstallation of a piece of semi-automated machinery is deployed without safety interlocks being reinstated.

When machinery has been recently purchased or relocated, the inspection should include any necessary testing and ensure that the equipment is installed correctly and is safe to operate.

Deterioration of the equipment

Normal use over time, may lead to critical parts of equipment failing due to wearing out, through corrosion or possible misuse. An unchecked, damaged abrasive wheel on a bench mounted grinder may easily shatter ejecting pieces of stone at high-speed from the rapidly rotating spindle injuring the operative using the tool.

If there is a likelihood that equipment could deteriorate resulting in dangerous occurrences, inspections should be conducted at suitable intervals, guided by the manufacturer's recommendations and set by the competent person.

This should be included in the risk assessment for the operation and maintenance of the equipment and state that minimum period between services of the equipment.

Exceptional circumstances which could affect the safe operation

Environmental issues such as rain, snow or wind may affect equipment in different ways, depending on how well the equipment is designed to deal with them. Exposure to low and/or high temperatures may affect equipment as demonstrated with the Challenger shuttle disaster in 1986 where low overnight temperatures affected the O-ring seals on the solid rocket booster allowing the escape of hot exhaust gases to destabilise the structure of the craft leading to a catastrophic explosion.

Equipment should be inspected after exceptional circumstances have taken place. For example, a sheeted fixed scaffold could easily be affected by high winds and should be inspected and tested as soon as practicable. With regards to inspections, the HSE have identified that major modifications, refurbishment, or major repair work, or a substantial change in the nature of use of the equipment (E.g., the equipment has not been used in a long time) also constitute exceptional circumstances.

Information and instruction

Employers must ensure that all persons who use, manage or supervise the operation of work equipment are provided with adequate health and safety information and appropriate written instructions. Information can be provided via operation manuals from the manufacturer, instruction notices, signage, or notices developed by the employer utilising local expertise. This would include suitable and sufficient risk assessments and method statements.

PUWER Guidance

SPECTRA

Training

For equipment to be used safely and maintained in good condition, it is essential that adequate training is provided. Equipment operators will need different training to those that supervise the safe operation or those that have been assigned to maintain the equipment, although there may be some overlap of skills. For example, a maintenance engineer may not have the expertise of a skilled forklift truck operator but would need enough skill to test the equipment after maintenance.
As another illustration, the most highly skilled footballers do not necessarily progress to become the best football managers!
Reg 9. of PUWER demands that all persons who use work equipment have received adequate training for purposes of health and safety. This includes training in the methods, which may be adopted when using the work equipment, any risks which may entail, and necessary precautions to be taken. This also applies to those who supervise or manage the use of the equipment.

Dangerous parts of machinery

Most health and safety legislation require a reasonably practicable approach to provision of health and safety measures. 'Reasonably practicable' means that before the provision of a health and safety control measure, the cost, effort and sacrifice can be considered and balanced with the amount of risk it will mitigate. However, PUWER in some regulations is more prescriptive. Instead of 'where reasonably practicable,' Reg, 11 states where 'practicable' ,i.e. 'the provision of fixed guards... that it is practicable to do so'. This is a stricter standard. In this case there is no consideration of cost or effort for providing machine guarding. In essence, if a machine has been designed with a guarding mechanism, then itmust be used and maintained in good working order.

PUWER Guidance

Penalties in the form of fines or ‘Fees for intervention’ can be issued by a HSE inspector to a small workshop if a an appliance is clearly in use but without a functional guard in place.

Practical Steps for organisations

- Make a list of all work equipment used in your business activities, including machinery, tools, office equipment, and company vehicles.
- Develop a risk assessment for each item of work equipment to identify any hazards, who it can harm and what measures are required to mitigate the level of risk associated with its use. The controls may include implementing hardware solutions, such as guards or safety interlocks, or software solutions such as training , instruction, information and supervision.
- Keep records of maintenance and inspections carried out on work equipment, as well as any training provided to employees. These may be provided by contractors such as Electricians or engineers checking Gas installations, Local Exhaust Ventilation, or Air compressors.
- Regularly review and update your risk assessments and control measures to ensure that they remain effective and up-to-date.

Benefits of monitoring

- Recorded inspections ensure you are compliant with PUWER regulations 1998 and indicate potential hazards before they become an issue.
- Reduces accidents in the workplace
- Reduces of downtime of equipment
- Provides a plan of action on how to move forward.

PUWER Guidance

SPECTRA

Summary

Employers must provide equipment which is suitable for its intended purpose.

Equipment must be inspected to ensure correct installation and maintained to prevent any deterioration, ensuring it is safe to operate.

Employers must provide adequate and suitable health and safety information which may include formal training, demonstrations, written instructions, suitable equipment markings, warning signage etc.

Only employees who have received adequate information, instruction and training are authorised to use the equipment.

Inspections are only carried out by competent staff and records kept of their findings until the next inspection.

Further information

PUWER Regs.
https://www.legislation.gov.uk/uksi/1998/2306/contents/made
ACOP https://www.hse.gov.uk/pubns/priced/l22.pdf
HSE Guidance https://www.hse.gov.uk/pubns/indg291.pdf