These regulations came into effect on the 5th December 1998 and replace PUWER 1992. They cover almost all equipment used at work, including tool box tools such as hammers, knives etc. They also cover machinery such as circular saws, photocopiers, lifting equipment; hoists, lift trucks, and installations such as ladders and scaffolding. Items not included are private cars, structural items, livestock and substances like cement acids and alkalines. The Regulations have been extended to include those people who control equipment but may not use it i.e. hire companies. If work equipment is to be used by a member of the public for instance, a garage tyre inflator or a lift in a shopping mall then PUWER is not applicable, but other legislation applies

Suitability of Work Equipment

Work equipment must comply with legislation implementing any relevant EC directives e.g. on CE marking etc. It must be constructed or adapted so as to be suitable for the work undertaken. It must also be used in accordance with the manufacturers specification and instructions. A knife with an unprotected blade should not be used for cutting where there is a safe alternative available. Other factors such as operator position, working heights, and reach distances need to be assessed to protect the operator from strains or other risks to health. Electrically powered equipment is not therefore suitable for use in wet or flammable atmospheres unless designed for the purpose. There should also be sufficient space between any moving parts of the equipment and the surrounds. All forms of energy, should be supplied and used in a safe manner, for example, a diesel lift truck must not be used in a working area unless there is adequate ventilation, to ensure that there is sufficient air of good quality and employees are not put at risk.

Maintenance

Work equipment must be kept in efficient working order and in good repair, and be suitable for its purpose. Hand tools should be checked by the employee prior to use for damage. More complex equipment will normally be accompanied by a manufacturer's maintenance manual which specify any special maintenance procedures to be carried out and when. Where there is a maintenance log it must be kept up to date. Whenever possible maintenance operations should be carried out when the work equipment is not in use. If this is not possible appropriate measures must be taken to reduce the risk, for example, the provision of temporary guards or limited movement, even a permit to work system.

Inspection

A suitable inspection must be carried out by a competent person with the necessary knowledge and experience. An inspection is only necessary where there is a significant risk resulting from either incorrect installation, deterioration or as a result of exceptional circumstances, which may affect the operator. Equipment unlikely to require inspection will include office furniture and hand tools. A record must be kept of all inspections.

Information, Instruction and Training

Any users of work equipment and, supervisors must be adequately trained in its safe use and have the risks and control measures brought to their attention. Workers should have easy access to such information and instructions and be able to understand them. Verbal instructions are sufficient or in writing. Chainsaw operators need to have certificates of competence.

Dangerous parts of Machinery

Appropriate measures need to be taken to prevent access to dangerous parts of machinery. The measures are ranked in the following order, the most effective being fixed guards, other types of guard or protection devices e.g. interlocking guards, and protection appliances such as jigs. For guards and protection devices to be effective, operators must have sufficient training instruction and information. Any guards or devices must never be abused or overridden.

Protection against specific hazards and high or low temperature

If there is a risk of materials falling or being ejected from work equipment, or it breaking apart (scaffolding) or the intentional or un-intentional release of any substance used or stored in the equipment e.g. swarf ejected from a machine tool, then this needs to be prevented or controlled. Personal protective equipment being the last resort. Appropriate levels of protection need to be provided for any work equipment or substances used or stored which are either very hot or cold. This relates to gas cookers, cold stores or a pipe capable of causing injuries like scalds or frostbite.

Controls

Controls must be provided to start work equipment and to change its speed, pressure or other operating condition. They must also be capable of bringing the equipment to a safe position. The stop control does not have to be immediate, unless there is a clear risk of injury if it is not. In this instance a clearly marked, raised emergency stop button would need to be provided.

Stability, Lighting, Markings and Warning

Stability

If work equipment might fall over, collapse or overturn, suitable precautions must be taken to secure it for example bolts or clamps. A ladder could be either footed, tied or clamped.

Lighting

Lighting must be adequate for the task involved and in the use of the equipment, for example to reduce visual fatigue.

Markings and Warnings

Work equipment must be marked with any appropriate health and safety markings for example stop and start controls, maximum rotation speeds of abrasive wheels, safe working loads for lifting equipment. Any markings should conform to standards and legislation such as the Health and Safety (Safety Signs and Signals) Regulations 1996. A warning or warning device must be provided where a risk to safety or health remains after other measures have been taken, Warnings are usually in the form of a notice or devices giving a signal, typically a visual reversing light or audible reversing alarm. Warnings must be clear an understood.

Mobile Work Equipment

New requirements have been introduced specifically for mobile work equipment, by definition equipment that undertakes work whilst travelling e.g. a lift truck. Existing work equipment has until the 5th December 2002 to comply with all requirements. Vehicles designed primarily to travel on public roads comply w the Road Vehicles (Construction & Use) Regulations 1996 and this is normally sufficient to comply with the requirements. Pedestrian controlled equipment so as lawn mowers are not covered.

Employees carried on Mobile Work Equipment

If mobile work equipment is to be used to carry people it must be suitable with proper seats where appropriate. Employees need to be protected from falling out of the equipment or unexpected movement of the cab. There should also be protection from items falling on them where there is a risk.

Rolling over of Mobile Work Equipment

Employees must be protected if there is a risk of rollover. This could be provided by stabilising the equipment, or ensuring the equipment is prevented from rolling over by more than 90 degrees e.g. tractors and mobile work equipment. If equipment can turn over completely, suitable roll over protective structures (ROPS) should be fitted unless it could increase the overall risk of injury when used in buildings with low roofs, or where the mounting points are of insufficient strength In such cases other methods should be used to address roll over. Where a risk is identified of a crush injury from mobile work equipment or, the protective structure in the event of roll over, a restraining system or seat belt should be fitted.

Self-Propelled Work Equipment

Self propelled work equipment must be prevented from unauthorised use and have brakes to slow down or stop in a safe distance. Where the driver's field of vision is inadequate then visibility aids should be provided like mirrors or close circuit television.

Lifting Operations and Lifting Equipment Regulations 1998

The regulations came into force on the 5th December 1998 and build on the requirements in PUWER 1998. Lifting equipment includes such equipment as cranes, lift trucks, goods lifts, vehicle inspection hoists, ropes, bell hoists and vehicle tail lifts.

Strength and Stability

A competent person should ensure that lifting equipment has adequate strength and capability, particularly mounting and fixing points. This includes considering the strength of the ground where the equipment is to be positioned for use. Pneumatic tyres should be inflated to correct pressures and checked on a regular basis. Loads should not normally be lifted by straps or banding unless it has been designed for the purpose.

Lifting Equipment for Lifting Persons

Lifting machinery must be fitted with a suitably designed carrier, which includes edge protection, working platform and overhead protection where appropriate. People should never be lifted on the fork arms or, pallets balanced on the fork arms of a lift truck as there is an obvious risk of falls. In the event of failure of any carrier, a method of rescue should be available. Where there is a significant risk of overturning or overload the equipment should be provided with devices to provide audible or visual warning when lifting limits are being approached.

Marking

Lifting equipment should be clearly marked to indicate safe working; loads and the maximum people to be carried. It must not be used for lifting people if it is not designed for that purpose.

Positioning of Lifting Equipment & Organisation of the Lifting Operation

Lifting equipment should be positioned or installed to minimise the need to lift loads over people to prevent risks of crushing them. The equipment should only be used when there is sufficient headroom and appropriate measures are in place to prevent overturning. Lifting operations must be planned by a competent person. For routine lifting operations the initial plan may only be required and reviewed to ensure that nothing has changed, for example a lift truck in a warehouse or a patient hoist. If the operator of lifting equipment is unable to see the full path of the load, there must be a system of work to ensure that the load is prevented from colliding, for example a signal or a banksman.

Thorough Examination and Inspections

Lifting equipment on initial use after installation, periodically during its? life, in accordance with an examination scheme or, following exceptional circumstances must be thoroughly examined by a competent person. The examination should take into account the condition of the lifting equipment, the environment in which it is used and the number of lifting operations and loads lifted. Different parts of the equipment may be examined at different intervals as decided by the competent person, who could draw up the examination scheme and carry out the inspection. This person is often an insurance company engineer but could be anyone sufficiently knowledgeable and trained for the purpose. For a person lift the intervals should be at least every 6 months, any other lifting equipment at least every 12 months i.e. a lift truck. All defects during use should be reported to the employer as soon as possible like cracks in a lift truck chain, or damage to textile slings. Certain situations involving lifting equipment may need to be notified to the enforcing authority for the premises concerned. Where your risk assessment has identified significant risks in the use of lifting equipment, a suitable inspection should be carried out, for example daily checks on forklift trucks. Reports of thorough examinations and other documents such as the current record of inspection should be kept and readily available.

Young Persons

Young persons i.e. those under 18 years of age must not use high risk lifting equipment, wood working machinery or power presses unless they have sufficient maturity and competence, or they are undergoing training with adequate supervision.

HSE Advice on Retroffitting of roll-over protective structures, restraining systems and their attachment points to mobile work equipment