Provision and Use of Work Equipment Regulations 1998 Regulation 15, Stop Controls - application to Woodworking Machinery

Scope

This document seeks to provide information on new guidance from the Health and Safety Executive that requires certain classes of woodworking machine to have an improved standard of braking system fitted. The guidance must be applied to machinery used for working on wood, cord, fibreboard and material composed wholly or partly of these materials. Where machinery that would normally be used for working with wood is used only with materials other than wood (e.g. plastic or metal), then this guidance should also be applied unless a risk assessment shows these measures not to be appropriate.

Introduction

- Historically, the Woodworking Machines Regulations 1974 were in place to cover the specific safety issues relevant to this type of machinery.
- The Provision and Use of Work Equipment Regulations (PUWER) were first introduced in 1992 and the majority of the 1974 regulations were revoked at that time.
- The PUWER were revised in 1998; the 1974 regulations were completely revoked and additional guidance, the Safe Use of Woodworking Machinery Approved Code of Practice was published in order to advise employers on how to comply with the requirements of PUWER in relation to this type of machinery. This includes Regulation 15 concerning Stop Controls.

New Machinery

For new woodworking machinery, the Supply of Machinery (Safety) Regulations require that the machinery must be equipped with an automatic brake that stops the tool in a sufficiently short time (**10 seconds or less**) if there is a risk of contact with the tool while it runs down.

Existing Machinery

For existing machines, the Supply of Machinery (Safety) Regulations do not apply but as the standard has a clear safety benefit, it is being applied through PUWER and the Approved Code of Practice. Regulation 15 of PUWER requires work equipment to be provided with controls that bring the work equipment ….'to a safe condition in a safe manner'. The aim is to avoid the risk of contact through workers forgetting that a tool is running, thinking that the tools has stopped when it has not or leaving a tool to run down unattended.

Requirements under the Approved Code of Practice

The Approved Code of Practice requires that a risk assessment is carried out to identify cases where the rundown time of cutting tools on woodworking machinery requires an

improved braking system. For the following types of machine, the standard mentioned above is required to be achieved by the dates shown.

By 5 December 2003

- Circular saw benches
- Dimension saws
- Powered and hand-fed cross-cut saws
- Single-end and double-end tenoning machines
- Combined machines incorporating a circular saw and /or tenoning attachment.

By 5 December 2005

- Narrow band saws
- Re-saws
- Vertical spindle moulding machines (unless fitted with a manual or foot-operated brake
- Hand-fed routing machines
- Thicknessing machines
- Planing/thicknessing machines
- Surface Planing machines

By 5 December 2008

- All other machines.

Ways of providing braking

The main ways are:

- Replace the existing unbraked motor with a braked motor
- Fit a direct current (DC) injection braking device to the existing unbraked motor
- Fit a power-operated mechanical brake
- Fit a manual or foot-operated brake

There are various factors that need to be taken into account when choosing the most suitable type of braking. These are explained in more detail in the HSE Woodworking Information Sheet No. 38, Retrofitting of braking to woodworking machines. Copies of this information sheet are available from the Safety Office or staff may print the document from the following web address: http://www.hse.gov.uk/pubns/wis38.pdf.

Braking devices are not considered necessary when:

- Machines have a rundown time of 10 seconds or less (there are some machines where the braked stopping times can be increased because to do otherwise would be dangerous. Examples of this are on large band re-saws or log saws where the permissible stopping time can be 35 seconds because the amounts of energy to be dissipated are large).
- The effect of braking could be detrimental to the integrity of the machinery

- Machines have been built in conformity with a harmonised European standard where the standard does not require braking devices.

Action Plan
A number of woodworking machines used at the University will require modification as they are unlikely to comply with the above requirements because of their age.

Schools and Departments should identify those machines that will definitely require modification at the earliest opportunity. In general, the modifications will need to be undertaken by reputable suppliers or manufacturers. Please contact the Safety Office for further information.

Two companies (current at October 2001) that are able to survey machines and advise on the best way of compliance are:

- Wadkin Ltd, Green Lane Road, Leicester, LE5 4PF, Tel. 0116 2769111

Contact the Service Department (current contact Steve Sheridan).

  Charge for fitting of D.C. Injection Units £680+vat, the price reduces if more units are purchased.

- Electronic Systems Research (ESR) Ltd., Unit 11, The Technology Centre, Epinal Way, Loughborough, Leics. LE11 3GE, Tel. 01509 216313.

  Current contact: Richard Batten (mobile no. 07774 632170).

  Approximate charge for fitting of D.C. Injection Unit £600 + vat. As above, price may be reduced if several units are required.

Other aspects of the Approved Code of Practice (L114)
Schools and Departments should be aware of the other individual PUWER requirements relating to Woodworking Machinery that are covered by this publication: Maintenance, Information and Instruction, Training of Woodworking Machinist and Training Records, Dangerous Parts of Machinery, Protection against Specific Hazards, Stability, Markings and Warnings.

See Appendix 1 for a summary of these.

References available from the Safety Office

- Provision and Use of Work Equipment Regulations 1998, Approved Code of Practice and Guidance, L22, 1998
- Safe Use of Woodworking Machinery, Approved Code of Practice and Guidance, L114, 2000
- PUWER 98, Retrofitting of braking to woodworking machines, Woodworking Sheet No.38, 1998
- http://www.hse.gov.uk/pubns/woodindx.htm for all HSE Woodworking Information Sheets

Appendix 1

Summary of Safe Use of Woodworking Machinery ACOP, L114 2000

Regulation 4: Suitability of Work Equipment
Woodworking machinery must be suitable by design, construction or adaption for the work it is provided to do. It must be in a suitable location and must be suitable for the actual processes it is to be used for.

Regulation 5: Maintenance
The machinery must be maintained so that it is safe and if a log of maintenance exists it must be kept up to date. It is recommended that records of servicing and maintenance are kept for high-risk machines. Frequency of maintenance will vary depending on the type of machine, the intensity of use, the environment in which it is used and the advice of the manufacturer. The Approved Code of Practice gives details of the type of maintenance that would be expected.

Regulation 7: Specific Risks
Where there is a specific risk to health or safety, use of the machine should be restricted to authorised persons. In particular, this applies to machines where material is hand-fed or where there are specific risks associated with setting, adjusting, cleaning or removing off-cuts. This also applies to maintenance, servicing or repair of a machine.

Regulation 8: Information and Instructions
Appropriate information and instruction must be provided to machine users, this may need to be written. Supervisors should also be aware of the information relating to health and safety. The Approved Code of Practice gives details of the type of information and instruction that should be provided.

Regulation 9: Training
Machine operators must have received adequate training for purposes of health and safety. Information on training content, demonstrating competence and refresher training is included in the guidance. Records of all training/instruction must be kept.

Regulation 11: Dangerous Parts of Machinery
Access to any dangerous part of machinery must be prevented. Appropriate guarding must be provided and maintained. A risk assessment must be carried out identifying the hazards presented by the machinery and the control measures in place to reduce the risk to a minimum. Routine checks of guards and protection devices must be carried out.

Regulation 12: Protection against specified hazards
Precautions to minimise the risk of injury from ejected material, disintegration and kickback must be in place.

Regulation 15: Stop Controls
Woodworking equipment must be provided with braking devices that reduce the rundown time of cutting tools where the risk assessment shows that this is necessary. They are considered necessary on certain types of machine.

Regulation 20: Stability
All machines should be secured in place to minimise noise, vibration and unwanted movement along the floor/bench.

Regulation 23: Markings
Machines must be marked with health and safety information such as the safe working speed of tools.

Regulation 24: Warnings
Appropriate health and safety warning notices must be displayed.