



## Safe working at woodworking machines

### Woodworking Sheet No 15

#### Introduction

This Information Sheet is one of a series produced by HSE's Manufacturing Sector. Its purpose is to give practical guidance on general workshop safety including cleanliness, lighting and workshop layout. Legal requirements covering the use of these machines are laid down in the Provision and Use of Work Equipment Regulations 1998 (PUWER 98)<sup>1</sup> and the Management of Health and Safety at Work Regulations 1999.<sup>2</sup>

#### General

When compared to other industries, woodworking accounts for a disproportionately high number of serious machinery accidents. Woodworking machines often have high-speed cutters which cannot be totally enclosed owing to the nature of the work which they do. It is therefore particularly important to maintain a working environment which is clean, tidy and takes proper account of human capabilities and weaknesses.

#### Use of safety appliances

Safety appliances such as well-designed push sticks and jigs are essential in keeping the hands in a safe position while maintaining full control of the workpiece during cutting. The use of a power feed will reduce the need for the operator's hands to approach the cutters, and power feeds should be used whenever it is reasonably practicable.

#### Machine controls

All woodworking machines should be fitted with a means of isolation from the electrical supply. The isolator should be conveniently positioned close to the machine. Lockable isolators give an increased degree of protection, particularly during maintenance operations. Lockable isolators can also be used to prevent unauthorised use of machines.

Woodworking machines must also be provided with an efficient means of starting and stopping. Start and stop controls should be within easy reach of the operator in the normal operating position. Machines should be switched off when they are not in use and should not be left unattended until the cutter has stopped turning.

#### Working space

An unobstructed working area is fundamental to the safe operation of woodworking machines. The layout of the workshop should be given careful thought so that



machines are positioned to make maximum use of available space, and to take account of the usual production cycle. Machines should be sited where the operator cannot be pushed, bumped into or easily distracted. Where possible, cutting machines should be separated from assembly or packaging areas and areas used by fork-lift trucks or other transport vehicles.

The production process should be arranged so that materials follow a logical path from delivery and storage, through the production process and on to the dispatch area. There should be adequate space around a machine to accommodate workpieces ready for machining, finished items and any waste materials, without obstructing the operator while working at the machine. Access routes and means of escape in the event of an emergency must be kept clear. Waste material should be stored in a suitable scrap bin which should be emptied at regular intervals, and waste sacks containing wood dust should be stored outside the workroom.

#### Floors

The floor around a woodworking machine must be kept in a good and level condition and should be kept free from loose materials such as chippings or waste wood. Electricity supply cables should either be routed above head height or should be set into the floor in such a way as to prevent tripping hazards. Polished floors should be avoided, and all spillages should be promptly cleared away to avoid the risk of slipping.



## Lighting

With good lighting - whether natural or artificial - we are more likely to see hazards. It also reduces the likelihood of visual fatigue and discomfort.<sup>3</sup>

Woodworking machinists need a clear view of the workpiece, the cutters and the various dials and gauges which indicate that the

machine is correctly set. Adequate lighting must be provided for gangways and passages. Make sure that lighting is positioned or shaded to prevent glare, and that lights do not shine directly into the eyes of machine operators. Windows should be provided with suitable shades where necessary, and care should be taken to avoid reflections from worktables or other shiny surfaces.

## Heating

Low temperatures lead to lack of concentration and cold hands will reduce the operator's ability to control the workpiece. A temperature of 16°C should be suitable for a workshop, but in a sawmill (where heavier work is carried out) a somewhat lower temperature (between 10°C and 16°C) should suffice.

Where it is impracticable to heat the entire workplace, suitable radiant heaters, of adequate capacity, can be provided near to the working areas.

## Dust collection

Wood dust is harmful to health.<sup>4</sup> Woodworking machines should be fitted with efficient means of collecting any dust or chippings produced during the machining process.<sup>5</sup> Local exhaust ventilation systems need regular maintenance and repair and thorough examination to prevent any deterioration in their efficiency.<sup>6</sup>

## Training

No person should work at a woodworking machine unless they are competent. Competency can be achieved through successful completion of formal training courses and closely supervised in-house practical training. Ensure that people under the age of 18 have both the competence and maturity to operate woodworking machines.<sup>7</sup>

## Reading list and references

- 1 *Safe 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
- 2 *Management of health and safety at work. Management of Health and Safety at Work Regulations 1999. Approved Code of Practice and guidance* L21 HSE Books 2000 ISBN 0 7176 2488 9
- 3 *Lighting at work* HSG38 HSE Books 1998 ISBN 0 7176 1232 5
- 4 *Wood dust: hazards and precautions* Woodworking Information Sheet WIS1(rev1) HSE Books 1997
- 5 *LEV: Principles of system design* Woodworking Information Sheet WIS23 HSE Books 1992
- 6 *The maintenance, examination and testing of local exhaust ventilation* HSG54 HSE Books 1998 ISBN 0 7176 1485 9
- 7 *Safe use of woodworking machinery. Provision and Use of Work Equipment Regulations 1998 as applied to woodworking machinery. Approved Code of Practice and guidance* L114 HSE Books 1998 ISBN 0 7176 1630 4

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This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

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