

# Work Equipment – Powered Tools

## Introduction

The Council recognises the usefulness of powered tools at work when used to increase efficiency, accuracy, prevent/reduce fatigue and in many instances reducing exposure to a harmful process or substance. There are many different types of powered tools, which may be used for production, cleaning and the processing of materials, or substances. Such tools are referred to generally as work equipment and are predominately powered by electricity, although some use compressed air, oil, water and sometimes percussion force.

## Arrangement for securing the health and safety of employees and others

All such tools, especially those hand held, must be maintained so as to be safe for use at work.

All managers will ensure that maintenance and inspection systems are in place and where necessary details will be recorded.

Area managers will comply with the Council's Code of Practice for the Testing of Portable Electrical Appliance CP23, regarding electrically powered tools and will ensure adequate testing and inspection and repair of pneumatic/hydraulic tools will be undertaken by competent persons.

Sufficient training, information and instruction must be given to ensure that all persons using any tools can operate them with no risk to their health and safety or to others. Training, information and instruction will be appropriately modified to cover changes in work equipment in use, changes in work activity and workplace relocation or modification.

Specific arrangements will be made for training and records regarding percussion/cartridge tools.

## Accidents and near misses

All accidents or near misses involving tools and any sort of work equipment must be reported. This includes electric shock, exposure to excess air/water pressure and any physical condition experienced, e.g. muscular-skeletal, respiratory or skin problems, vibration effects from noise, dust, fumes, etc.

## Safety instruction for the use of power tools

- **Appropriateness:** Tools must be appropriate to and capable of doing the work in hand.

It is important that users read and understand instruction manuals and any labels attached to a power tool, its application, its limitations and the potential hazards associated with the tool and its operation.

- **Electrical earthing:** Tools supplied with a 3-core cable must always be connected with the green and yellow core to the earth terminal, **never attempt to connect it to a live terminal.**
- **Keeping guards in position:** Guards must always be in position (if not fixed in position), in good working order, correctly adjusted and aligned. Power tools must never be used without the guards supplied with it.
- **Removal:** Checks must always be made to see that keys and adjusting wrenches are removed from a power tool before switching on.
- **Housekeeping:** Accidents occur where benches and work areas are cluttered or dirty. Floors must be kept clear. Working where the floor is slippery, due for example, to sawdust or wax, must be avoided.
- **Dangerous environments:** Electrically powered tools must not be used in damp or wet locations or exposed to rain. Adequate surrounding work space must be maintained and kept well lit. All tools no matter what the source of power - electrical, pneumatic, hydraulic, manual, must not be used in adverse conditions, such as slippery floors, poor lighting, etc. (See Code of Practice CP23 for conditions of use for electrical tools in construction work).
- **Children:** Children should always be kept a safe distance from work areas.
- **Excessive force:** Excessive force must not be used when using any tool.
- **Correct power tool:** Tools must not be used for any purpose they are not designed for.
- **Correct clothing:** Loose clothing, neckties or jewellery (rings, wristwatches, etc.), must not be worn, these may get caught in moving parts. Non-slip footwear covers or tie backs for long hair should be worn. Long sleeves should be rolled above the elbow, or have the cuffs securely fastened.
- **Personnel Protective Equipment:** Safety goggles of an appropriate standard must always be worn, (every day glasses are not sufficient for eye protection, as lenses are not impact resistant and could shatter). Appropriate face or dust mask should be used if the operation is likely to be dusty, and ear protection must be worn, where noise emission is likely to exceed the upper exposure action value (85dB(A)) of the Control of Noise at Work Regulations.
- **Security/stability/balance:** Wherever practical, clamps or a vice should be used, to allow use of both hands to operate the power tool. Care must be taken not to over-reach, proper footing must always be maintained to ensure correct balance.
- **Maintenance:** Power tools must be kept in good working order and where appropriate kept sharp and clean, etc. for efficient performance. Instructions for changing accessories and lubrication must be followed.
- **Disconnection:** Tools must be disconnected from the power source when not in use and, when changing fittings, tool bits or accessories.
- **Accidental starting:** Switches must be in the 'O' position (off) before being plugged in to the mains supply.
- **Accessories:** The operators manual should be referred to for recommended accessories. The instructions that accompany the

accessories must be followed. The use of improper accessories could be dangerous.

- **Misuse of power tools:** Exerting excessive pressure or use at inappropriate speeds and angles could cause serious injury if the tool slips or if accidental contact is made with the cutting edge.
- **Damaged parts:** Checks must be made to ascertain whether any part of the power tool is damaged before use, and a check made to ensure it will operate properly and perform its intended operation. Alignment of moving parts should be checked for binding. Any guard or other part that is damaged must be correctly repaired or replaced.
- **Direction of feed:** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
- **Tools unattended:** Portable power tools must not be left unattended.

### **Record keeping**

A register of all electrical tools (plug in) must be maintained and updated as necessary. All electrical tools are to be given an identification number and label which will be entered into the register. A test date label will also be attached to all portable electrical tools giving the date it will be considered due for re-testing - see Council Code of Practice CP23.

Records of other powered (pneumatic, hydraulic) tools should also be kept regarding inspection/test and maintenance.

With regard to cartridge percussion records must be maintained of tests, inspections, occasions of use, cartridges consumed and competent persons who are allowed to use the tool.

### **Summary of statutory duties**

- The Health and Safety at Work etc. Act 1974; Section 2 requires employers to provide and maintain safe plant and equipment.
- The Provision of Use of Work Equipment Regulations is more specific and requires several safety measures to be applied to all work equipment including powered tools. Requirements include selection of the right equipment, maintenance, restrictions of use, training and information on safe use, guarding, extreme temperatures, warning notices and provision for effective isolation from the power source.
- The Personal Protective Equipment Regulations 1992 (as amended) require that PPE be provided and worn where the work activity, in this instance, using powered tools, presents a risk of physical harm to the user.

See also: Provision and Use of Work Equipment.