Hand tools should be systematically kept or stored at tool-rack or toolbox after use. Those having sharp corners or edges should be protected by sheaths before they are stored.

Every hand tool should be kept in an orderly manner at a workroom or toolbox designated for the purpose.

Glass or broken parts should be discarded immediately.

Hand tools that are broken or require repair should be kept separately and labelled with a warning notice “DANGER I DO NOT USE FOR WORK”.

Periodic examination, repair and maintenance of hand tools should be carried out only by persons who are experienced and competent.

Proper steps and procedures should be followed when operating a hand tool, e.g. the face of the hammer head instead of the peen should be used for hammering nails; the handle of a spanner should not be hammered or extended by tubes for applying greater strength in screwing of bolts or nuts.

When hand tools with sharp corners or edges are used, their direction of movement should be away from the body. Suitable personal protective equipment such as helmets, aprons or gloves should be used when necessary.

When flying fragments, particles or noise are generated during the operation of hand tools, suitable personal protective equipment, e.g., goggles, masks or ear-muffs, that conform to safety standards should be worn.

The operator should use clamps to secure a workpiece that is liable to move into a stable position.

When using a hand tool, one should concentrate on the job. Playing with hand tools should be strictly prohibited.

Improper alignment of loads on a jack can be obtained through hotline 2739 9000.

Information on the services of the Labour Department and on major labour legislation can also be found by visiting our Home Page on the Internet at http://www.labour.gov.hk.

If you wish to enquire about this leaflet or require advice on occupational safety and health, you can contact the Occupational Safety and Health Branch through:

- Enquiry: enquiry@labour.gov.hk
- Fax: 2915 1410

If you have any complaints about unsafe workplaces and practices, please call the Labour Department’s occupational safety and health complaint hotline on 2542 2723. All complaints will be treated in the strictest confidence.

General Safety Precautions to be adopted in using Hand Tools

(a) Hand tools selected for the job should be suitable. The handle of a tool should fit the hand of an operator to avoid slipping out from the hand during use.

(b) Hand tools should not be used for purposes other than they are designed for. Their material strength is always designed according to the nature of work to be performed. Tools being misused may lead to fracture, causing danger to persons.

(c) Before working, workpieces should be checked for protruding metal parts that may cause damage to hand tools.

(d) Precautions should be taken to prevent tools slipping out from hands while working at height.

(e) Precautions should be taken when working on or near electrical conductors.

(f) Hand tools should be operated in correct posture and strength.

(g) Proper steps and procedures should be followed when operating a hand tool, e.g. the face of the hammer head instead of the peen should be used for hammering nails; the handle of a spanner should not be hammered or extended by tubes for applying greater strength in screwing of bolts or nuts.

(h) When hand tools with sharp corners or edges are used, their direction of movement should be away from the body. Suitable personal protective equipment such as helmets, aprons or gloves should be used when necessary.

Special care should be taken to prevent other persons in the vicinity from defects. If the worn out or damaged parts cannot be repaired, the whole tool should be discarded immediately.

(b) Hand tools should be inspected every time before use. Special care should be paid to the cleanliness of tools. Blunt cutting edge or deformed working part should be redressed.

Selection of Hand Tools

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(h) When hand tools with sharp corners or edges are used, their direction of movement should be away from the body. Suitable personal protective equipment such as helmets, aprons or gloves should be used when necessary.

(i) When flying fragments, particles or noise are generated during the operation of hand tools, suitable personal protective equipment, e.g., goggles, masks or ear-muffs, that conform to safety standards should be worn.

(j) The operator should use clamps to secure a workpiece that is liable to move into a stable position.

(k) One should concentrate on the job when using a hand tool. Playing with hand tools should be strictly prohibited.

Safe Operating Procedures

(a) Hand tools should only be carried to work area in a proper toolbag or with a tool belt.

(b) Special care should be taken to prevent other persons gaining access to the work area where long handle tools are being operated. When necessary, the work area should be fenced off to prevent unauthorized entry.

(c) Before working, workpieces must be securely clamped to the workpiece that is liable to move into a stable position.

(d) Precautions should be taken to prevent tools slipping out from hands while working at height.

(e) Precautions should be taken when working on or near electrical conductors.

(f) Hand tools should be operated in correct posture and strength.

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(k) One should concentrate on the job when using a hand tool. Playing with hand tools should be strictly prohibited.
### 1. Maintenance of Hand Tools

(a) A system should be established for the purpose of adopting by employers and including types of operation, information on the use of hand tools, safety precautions in using hand tools. There were instances where other persons in the vicinity were struck and injured by tools flying out. Repetitive use of hand tools for a prolonged period or using unsuitable tools for work could also cause musculo-skeletal disease, e.g. tenosynovitis.

Period or using unsuitable tools for work could also cause musculo-skeletal disease, e.g. tenosynovitis.

(b) Hand tools should be inspected every time before use. Special care should be taken to prevent other persons in the vicinity from being struck while working at height.

(c) Hand tools should only be carried to work area in a proper toolbox or with the use of a tool-belt.

(d) Periodic examination, repair and maintenance of hand tools should be carried out only by persons who are experienced and competent.

(e) Precautions should be taken when operating a tool, e.g. the face of the hammer head instead of the peen should be used for hammering nails; the handle of a spanner should not be hammered or extended by tubes for applying greater strength.

(f) Hand tools should be operated in correct posture and strength.

(g) Proper steps and procedures should be followed when operating a tool.

(h) When hand tools with sharp corners or edges are used, their direction of movement should be away from the body. Suitable ear-muffs, that conform to safety standards, should be used for hammering nails; the handle of a spanner should not be hammered or extended by tubes for applying greater strength.

(i) When flying fragments, particles or noise are generated, protective equipment, e.g., goggles, masks or ear-muffs, that conform to safety standards, should be used.

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(k) When hand tools with sharp corners or edges are used, their direction of movement should be away from the body. Suitable ear-muffs, that conform to safety standards, should be used.

### 2. Potential Hazards from using Hand Tools

The following are factors contributing to hazards associated with using hand tools by workmen:

<table>
<thead>
<tr>
<th>Hazard Factor</th>
<th>Example of Injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dangerous parts of hand tools</td>
<td>Workman cut by sharp corner or edge of a tool</td>
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<tr>
<td>Defects in hand tools</td>
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<td>Hand tools improperly designed</td>
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<td>Large impact force on workpieces by tools</td>
<td>Broken fragments or particles flying out causing injuries to eyes or face; excessive noise causing hearing loss</td>
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<tr>
<td>Displacement of loads</td>
<td>Improper alignment of loads on a jack from tools causing load displacement and injuries to workman</td>
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### Types of Operation of Hand Tools

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<th>Mode of Operation</th>
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<tr>
<td>Hammering and breaking</td>
<td>Impact force produced by vertical motion of a tool towards point of operation. Hammer, chisel.</td>
</tr>
<tr>
<td>Cutting</td>
<td>Impact force created by reciprocating motion or traversing motion of a tool. Handsaw, axe, chisel, knife.</td>
</tr>
<tr>
<td>Drilling</td>
<td>Rotating action of a tool to penetrate tissue or make holes. Hand-drill, screwdriver, wrench.</td>
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<td>Rotating</td>
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<td>Pulling</td>
<td>Forward and backward action of a tool to move the workpiece by the same tool. Pliers, locking pliers.</td>
</tr>
<tr>
<td>Supporting or lifting</td>
<td>Support, or lift the load, from its base. Jack.</td>
</tr>
<tr>
<td>Fixing position</td>
<td>Clamping workpiece. Clamp-on vise, pipe vise.</td>
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### Potential Hazards from using Hand Tools

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