



**Footwear and Leather Industries  
Health & Safety  
Committee**

# ***DON'T CUT IT!***

A guide to knife safety in the footwear and leather industries





## **INTRODUCTION**

The use of various types of knives is commonplace within the footwear and leather industries. Knives are a major cause of injury. Cut injuries can have serious or even fatal consequences.

## **WHAT THE LAW REQUIRES**

The Health and Safety at Work etc. Act 1974 requires employers to ensure the health, safety and welfare of their employees and anyone who may be affected by their work. This implies a duty to investigate ways to reduce cut injuries or to eliminate them completely.

Other legislation that is relevant includes the Management of Health and Safety at Work Regulations 1999, the Provision and Use of Work Equipment Regulations 1998 and the Personal Protective Equipment at Work Regulations 1992.

## **MANAGING RISKS FROM CUTS**

### **Assess Risk from Cuts**

All companies have to assess the risks to their employees and others who may be affected by their work. This will help to find out what needs to be done to satisfy the law. *See Appendices 1 and 1a example of a risk mapping tool.*

### **What can we do to prevent cut injuries?**

Where it is not possible to eliminate the use of knives, more proactive management control will be required. Use the following guidance for every task where knives are currently used and where employees or contractors could be exposed to sharp machine parts.



Clicker using clicking knife

### **Eliminate Potential for Cut Injuries**

Try to eliminate the use of hand knives or sharp machine parts from all or part of the task by:

- Redesign the tooling or process to eliminate/reduce trimming
- Enclose or protect sharp machine parts
- Automatic cutting
- Use a safer cutting tool (eg ceramic knife or blade)

If it not possible to eliminate the use of hand knives or exposure to sharp machine parts completely then follow the good working practice outlined below.

### **GOOD WORKING PRACTICE**

#### **Specify the Right Knife**

Consider the range of knives available, conduct trials and invite the user's views. Specify the knife/knives to be used that suits each task and withdraw any other currently in use. Consider knives with:

- Retractable blades
- Round-ended blades
- Blades with a reduced cutting edge
- Handles which allow a firm and comfortable grip
- Left and right-handed types

It is acceptable to have different hand knives available to the workforce, provided they are all deemed safe for the work and have been assessed as such following user trials. Ensure safe knives and blades are available and good working practices are adhered to when using, storing and disposal of knives/blades (see below):

#### **General**

1. Good knives, specifically selected for the task, must be kept clean and in good condition if safe, satisfactory results are to be achieved.

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Leather worker trimming after fleshing machine

2. Safe, accurate cuts can only be made if the blade of the knife is sharp and clean.
3. A blunt knife slips. Accidents are more likely to occur with a blunt knife than with a sharp one.
4. Accidents can occur because the blade is too long. A careful examination of the material and the cutting action required should take place, in order to establish the ideal blade appropriate to the task.
5. When the knife is not in use, whether it be placed on a bench, hung up or kept in a drawer the blade should be guarded, eg., in a scabbard or knife holder. Discarded blades should be disposed of in a suitable container.
6. A knife with a fixed blade guarded or not, should never be carried in the pocket.
7. Hand knife injuries usually happen when the knife blade slips during cutting or trimming. In most cases the blade comes into contact with the workers other hand, causing a laceration to the hand and/or fingers. Injuries do also occur to other parts of the body, including the knife hand itself.

### **The knife in use**

1. Many knives are used in wet and/or greasy working conditions, and the knife should possess an adequate grip and guard to prevent the hand slipping forward to the blade. The guard may consist of a metal or plastic stop fitted at the base of the handle.
2. The user should never cut directly toward the body unless appropriate precautions have been taken.

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Edge trimming

3. The free hand must never be placed forward of the advancing knife blade.
4. Where cuts have to be made in close proximity to the free hand a chain mail glove should be utilised to protect that other hand.
5. Never turn around with a knife held in the hand, there may be someone in the way.
6. Do not hold the knife in the hand whilst carrying out other tasks.
7. Open bladed hand knives should NOT be used unless there are no reasonable safer alternatives, and only authorised/competent persons should be using knives.


### Sharpening the knife

A sharp, keen knife edge is produced by the blending of two distinct processes:

- (a) Grinding                      (b) Steeling/Rifling

Grinding creates the sharp edge.

1. Before grinding, knives must be washed in hot water to remove grease.
2. The normal process is to use a fine sandstone grindstone, except where the knife is in poor condition or requires reshaping.
3. The grindstone must be kept wet (if a dry grindstone is used it can ruin the temper of the blade).
4. Irrespective of the type of stone, the blade must be presented at a slight angle (an acute will produce a thin, weak edge and the knife will very quickly become blunt).

	<ol style="list-style-type: none"><li>5. The object of grinding is not only to put an edge on it but also graduate the blade from edge to back pro rata to its width.</li><li>6. An oilstone may be used after grinding to 'Set' the sharp edge by smoothing it and more lasting results will be obtained.</li></ol> <p><b>Steeling/Rifling</b></p> <p>When knives have been correctly ground and set a further process 'steeling' is necessary to perfect the cutting edge.</p> <p>The steel is used after grinding and whenever necessary to retain the keen smooth cutting edge.</p> <p>The best results are obtained from a fairly smooth steel, a course, or rough steel will tend to 'turn' the cutting edge.</p> <ol style="list-style-type: none"><li>1. The steel should have a guard at the base of the handle, which may consist of a small circular piece of thick leather, slotted and fitted at the junction of the steel and the handle.</li><li>2. The steel must be held firmly and</li></ol> <p><i>Either (a)</i> In a comfortable almost horizontal position across the chest but away from the body.</p> <p><i>Or (b)</i> The steel pointed vertically downward with the tip pressed against a firm non- slippery surface (e.g. a workbench). Both of the suggested positions ensure maximum control of the knife blade thus reducing the likelihood of injury.</p> <ol style="list-style-type: none"><li>3. The blade should be quickly but firmly drawn along the steel, edge first, alternating the sides of the blade.</li><li>4. Ensure that no other person can walk into the arc of the knife.</li></ol>
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5. Employees should be instructed by a competent person in the safest method of using the steel to avoid cutting themselves, by a competent person.
6. Only authorised people should carry out grinding and steeling.

### **Provide safe storage for knives/blades**

It is important to prevent situations where knives are left lying loose on work benches/surfaces or where individuals carry them in their hands from one place to another. Such poor practice has led to injuries to both the knife user and others, including people walking into each other, with exposed blades. You should:

- Provide suitable storage facilities, eg. racks, slots, boxes etc adjacent to the place of work;
- Allocate suitable belts or sheathes to employees who need to move around carrying knives;
- Strictly enforce rules prohibiting the carriage of knives in the pocket or in the hand from one place of work to another;
- Provide used blade disposal points, eg sharps containers.

### **Specify the right PPE**

Personal protective equipment (PPE) needs to be provided for eyes, hands, arms torso/legs and feet as highlighted from your risk assessment. Users are far more likely to use the PPE properly if they help to select it. Once provided, its use needs to be properly supervised if injuries are to be prevented. Never allow exemptions for those jobs which take “just a few minutes”. All PPE comes in a variety of sizes and the range of sizes needed by the workforce should be provided at the outset (with spares available as replacements). Care should be taken in selecting the right size for each individual- particularly with gloves where people are less likely to be familiar with the size ranges available.



Leather worker rounding after splitting machine



Rough rounder cutting around sole

### **Consider the working environment**

Follow these basic housekeeping rules:

- The floor surface should be even and provide sufficient slip resistance.
- Containers should be provided for waste materials.
- Floors and work surfaces should be kept free of debris and production waste.
- Spillages should be cleaned up promptly.
- Also each person using a knife should have enough working space to move freely and allow them to operate in a safe manner without endangering themselves or others. Work surfaces should be set at a comfortable height for the individual to work at. Adequate lighting levels should be provided.

### **First aid**

A serious stabbing or cut injury can result in heavy external and internal bleeding, particularly if a main artery is punctured. Prompt first aid action could save a life. Wherever knives are in use, a risk assessment must be carried out to determine the appropriate level of first aid cover required.

### **RECORDS, INFORMATION, INSTRUCTION & TRAINING**

It is recommended that proper instruction is given, and a record kept, on good working practice to all employees who will use a knife or come into contact with a sharp blade. A competent person should provide such training as outlined below:

The general use, care and maintenance of hand knives (including typical accidents, cutting away from the body and the danger of blunt knives and the sharpening of knives)



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Safety knife with limited application for leather trimming



Assortment of working knives

The correct tool and protective equipment for each task they have to perform

The correct way of working at any particular job and any safe operating procedures that need to be followed (eg the frequency of blade changes or the criteria for rejects) and in-house company rules (eg on storage or carriage of knives)

Newly trained staff should be introduced gradually to high-speed production operations if this is necessary to reduce the risk of injury. Each operator should be supervised until they are skilled enough to work safely at full production rates

### **Employees and Safety Reps**

Consulting with trade union-appointed safety representatives (see Safety Reps and Safety Committee Regulations 1977) or other employee representatives (see Health & Safety Consultation [with employees] Regulations) is a legal requirement. Working with safety representatives and employees' representatives is a very useful means of communicating on health and safety matters in the workplace.

**Remember: involving employees in decisions can help to foster closer working relationships and make employees more receptive to new ideas.**

### **USEFUL PUBLICATIONS**

*HSE Information Sheet, Plastics Processing Sheet No.12*

*Management of health and safety at work. Approved Code of Practice L21 1992 ISBN 0 7176 0412 8*

*Personal protective equipment at work. Guidance on Regulations L25 1992 HSE Books ISBN 0 7176 0415 2*

## DON'T CUT IT – A GUIDE TO KNIFE SAFETY

*Five steps to risk assessment INDG(G)163L 1994  
HSE free leaflet*

*Five steps to successful health and safety  
management INDG(G)132L 1992 HSE free leaflet.*

*HSE Books tel 01787 881 165*

*HSE website: [www.hse.gov.uk](http://www.hse.gov.uk)*

*Appendices 1 and 1a Risk Mapping Diagram*



Stripping using knife and chain mail glove.

### **SOME QUESTIONS TO ASK**

- a. Has a survey been made of all operations involving the use of knives?
- b. In each case where a hand knife is used have alternative safer methods been considered
- c. Has the use of employees' own knives been prohibited?
- d. Where the use of knives is essential, have:
  - i. the operations for which they should be used been specified?
  - ii. the persons designated to use them been specified?
- e. Has a safe type of knife been provided?
- f. Have the company considered scissors, retractable blades with inward curving edges.
- g. Have the persons designated to use the knives been trained in a safe system of work?
- h. Is personal protective equipment provided?

## **SAFE HANDLING OF KNIVES – PREVENTING CUTS**

### **DO:**

**Let a falling knife fall**

**Use a firm grip and even pressure when cutting**

**Cut in the direction away from the body where possible**

**If possible, retract the blade of the knife before passing to a co-worker**

**Ensure sufficient working area, to avoid risk of being bumped**

**Place used blades in an appropriate container**

**Wear chainmail or cut resistant gloves**

**Use safety retractable blade knives**

### **DON'T:**

**Try to catch a falling knife**

**Walk around with an open blade knife in your hand**

**Use a knife blade without a handle**

**Leave a knife with the blade extended out**

**Place knives near the edge of worktops**

**Use a dull knife blade**

**Use a knife as a screwdriver or other tool**

## **APPENDIX 1.**

### **How to use the Risk Mapping Tool:**

Draw a rough sketch map of the area (the diagram does not need to be a work of art or even to scale, so long as it represents the workplace affected) see risk mapping diagram.

Mark on all cut accidents reported in the last twelve months (or any relevant period) with crosses.

Talk to the workers to identify any near misses and add them to the chart.

***Any hotspots will quickly show up on the chart - and once the problems and their causes have been identified –***

- Discuss them with management
- Decide what action needs to be taken
- Continue to monitor to ensure control measures put in place are working
- Make sure improvements are communicated to health and safety representatives to highlight achievements

**APPENDIX 1a.**

**EXAMPLE OF A RISK MAPPING DIAGRAM**

Name of company rep .....  
Name of trade union safety rep.....  
Workplace .....  
Date.....

	Key	Hazard	Control Measure

**The risk mapping tool can be used for a survey of the factory over previous months to establish any problem areas and recognise any problem spots that may have been missed. Talk to the workers to identify any near misses and add them to the chart. Make sure improvements are communicated to health and safety representatives.**

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This document will be available on the following websites:

British Footwear Association – [www.britfoot.com](http://www.britfoot.com)

British Leather Confederation – [www.blcleathertech.com](http://www.blcleathertech.com)

Community – [www.community-tu.org](http://www.community-tu.org)