

SHOE REPAIR

(See also: [Abrasive Wheels\(1\)](#); [Carcinogens\(12\)](#); [COSHH\(19\)](#); [Flammable Liquids\(29\)](#); [Machinery Safety\(49\)](#); [Personal Protective Equipment\(63\)](#); [Work Equipment\(91\)](#)).

SHOE REPAIR

INTRODUCTION

This element provides advice on the health and safety risks and precautions associated with shoe repair activities in heel bars, shoe repair shops and the like. The main types of shoe repair are:

- welted leather shoe repair (stitching)
- cemented - on sole repair (where adhesives and a press are involved)
- stuck on sole repair (covers the original worn sole)
- top piece attaching (replacement of wearing surface of the heel of a shoe).
- Heel attaching (replacement of the heel base and wearing surface)
- upper stitching

Repairs to soles and heels require subsidiary trimming and finishing to the exposed edges that involve the use of (rotary) cutters, abrasive wheels or abrasive finishing bands.

MACHINERY HAZARDS AND PRECAUTIONS

Attaching machines

- A pneumatic press is brought down onto the shoe, applying pressure while the adhesive sets.
- Slow movement of the pressing head means guarding is not usually necessary due to the low trapping risk. However if the maximum speed is greater than 50mm per second additional operator safety devices should be provided (eg two hand controls).
- Where heel attaching machines are manually operated no additional safeguards are necessary. Pneumatically powered machines present trapping hazards and should be provided with two-hand control devices or equivalent.

Top piece attaching machines

- Stapling and nailing machines are hand-held pneumatically operated tools for attaching thermoplastic type top pieces. Use and maintenance should be in accordance with Guidance Note PM17 - Pneumatic nailing and stapling tools, and in particular:-

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- (a) guarded trigger.
- (b) quick release couplings in the airline to the tool.
- (c) examination by competent person weekly.
- (d) disconnection from air supply when not in use.

Roughing and Scouring Machines

- Consist of one or more continuous abrasive scouring bands.
- Bands to be enclosed as much as practicable (usually no more than 180° arc exposed)
- Where pulley shafts and spindles are accessible, they should be guarded (in many cases by loose sleeving as the most practicable method).

Finishing Machines

- These include polishing equipment (any exposed shafting to be adequately guarded), edge cutting machines (generally protection is afforded by the dust collection hood or a spring-loaded retractable guard).

Abrasive Wheels

- These may be used to regularly regrind and sharpen rotary cutters.
- Details on abrasive wheels can be found in the Abrasive Wheels element of this Information System.

Edge Setting Equipment

- Used to seal the soles and heels by heat and wax treatment. The tool used consists of a heated stepped hollow cone.
- The hexagon nut or other securing fixture at the end of the shaft must be properly shrouded.

General safeguarding of Machinery

- Dangerous parts requiring secure guarding include (note: **this is not an exhaustive list**)
 - (a) shafting
 - (b) flat belts and pulleys (unless the belt is less than 50 mm wide on a non-flanged pulley and so slack as not to be dangerous)
 - (c) vee belts and pulleys
 - (d) gear wheels
 - (e) set-screws, belts or keys on revolving parts should be guarded or countersunk.
- All guards should be properly maintained and correctly adjusted.

HEALTH HAZARDS

Dust

- Indications are that exposure to high levels of dust (most probably leather dust) in boot and shoe manufacture can lead to nasal cancer.
- The risk in footwear repair premises is thought to be substantially smaller as the processes creating leather dust are carried on less intensively.
- Local Exhaust Ventilation (LEV) should reduce exposure to the dust to the greatest extent that is reasonable practicable.
- Any dust levels greater than:-
 - (i) 10 mg/m³ (8 hour time weighted average) of total inhalable dust; or
 - (ii) 4 mg/m³ (8 hour time weighted average) of respirable dusts will be covered by COSHH.
- Advice on control is given in EH44 : Dust : general principles of protection. Precautions should include the following:-
 - (a) proper use and maintenance of LEV.
 - (b) maintenance procedures to be specified and to include daily, weekly and six monthly checks.
 - (c) keeping records relating to the above.
 - (d) examining the immediate surroundings - if horizontal surfaces are contaminated, it is likely the extraction equipment needs looking at.

Solvents and Adhesives

- In footwear repair premises it is unlikely that operatives will be exposed to harmful concentrations of solvent vapours, provided that:-
 - (a) there is an effective and appropriately arranged ventilation system, including fresh air intake.
 - (b) solvents and adhesives are stored in properly stoppered containers when not in use.
 - (c) protective clothing/suitable equipment for applying the adhesives and cements is provided and used.
 - (d) there is a prohibition on smoking.

OTHER SAFETY CONSIDERATIONS

Fire
Electrical hazards
Air receivers (pressure vessels)
Personal protective equipment
Workplace conditions

Advice on these items can be found in other elements of this Information System.

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CHECKLIST - SHOE REPAIR

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|----|--|-----|----|
| 1. | Have you carried out risk assessments regarding the use of machinery and equipment in use in your premises? | YES | NO |
| 2. | Have you identified the measures (precautions) necessary to control the risks? | YES | NO |
| 3. | Are the machines used and maintained in accordance with the control measures identified in risk assessments? | YES | NO |
| 4. | Do you inform, instruct and train your employees in the safe use and maintenance of such machines and equipment? Is this logged? | YES | NO |
| 5. | Do you need to carry out a COSHH assessment of exposure to dust? | YES | NO |
| 6. | Do you ensure that employees are not exposed to harmful concentrations of solvent vapours? | YES | NO |

REFERENCES/FURTHER DETAILS

- * 1. Guidance Note GS32 - Health and safety in shoe repair premises. (HSE) ISBN 0 11 883610 2

- * Available to view by prior arrangement at Nuneaton and Bedworth Borough Council, Environmental Health Services, Council House, Coton Road, Nuneaton. CV11 5AA
- ** Free copy available from Nuneaton and Bedworth Borough Council at the above address.

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