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H & S Guidance - Access Equipment/Ladders

INTRODUCTION

Access to buildings or parts of buildings can be achieved by the use of scaffolds or ladders. This guidance will seek to highlight the main causes of accidents involving such access equipment and recommend precautions and procedures to control the risk.

LADDERS

(The term ladder will be taken to include step ladders and trestles)

The ladder is the most useful and most commonly used tool for access from one level to another. Each year there are between 3000 and 4000 serious accidents involving ladders and around 50 of these prove fatal. A proportion (approx. 10%) of accidents are caused by the ladders themselves being faulty but the overwhelming majority are, however, caused by human error.

Main causes of accidents include:- ladders slipping; erection at the wrong angle; over-reaching/over-balancing; slippery rungs; overloading; ladders resting against fragile or moveable structures; materials falling; incorrect (short) size; use in adverse weather; contact with live electrical conductors; lack of use of crawling boards; defective condition of ladder.

PRECAUTIONS

A safe systems of work can generally be achieved by management planning before work starts and by controlling the way work is carried out. Specifically this could entail the following:-

- (1) Consider alternatives i.e. can the job be done more safely in a different way e.g. a temporary working platform or stage is inherently a much safer means of access.
- (2) Examine the circumstances of intended use e.g. can the ladder be secured; site conditions; suitability of the ladder (length, type, location etc.) and nature of the structure against which the ladder is to rest.
- (3) Ensure safe practices - There is extensive published guidance on the safe use of ladders (see References/Further Details section).



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A prime safety consideration is for the ladder to be secured (at top and bottom where practicable) so as to prevent slippage. Footing a ladder is only considered to be effective for ladders of not more than 6 metres in overall length. A number of proprietary securing devices are available from ladder suppliers. Further considerations include:

- ladders to extend at least 1.05m above the landing place or the highest rung on which the user has to stand (unless handhold available)
- angle of erection to be about 1 unit out for every 4 units in height
- minimum recommendations of overlap for extension ladders to be observed
- for step ladders - side leaning to be avoided and to be placed at right angles to the work whenever possible.
- for roof ladders - proper securing (not to guttering); proper positioning of the ridge hook or iron and securing to the access ladder to prevent movement

(4) Provide comprehensive and comprehensible information, instruction and training regarding safe working methods when using, raising, carrying and storing ladders.

(5) Establish a system of maintenance. This should include user checks and periodic examinations by a competent person. A register of ladders should make the control of a maintenance programme easier. Defective ladders should be removed from service immediately, labelled and either repaired or replaced. You may wish to issue checklists to users, supervisors, ladder checkers to supplement training.

GENERAL ACCESS SCAFFOLDS

This guidance will consider general access scaffolds to be any temporarily provided structure on - or from which - people perform work or obtain access to places of work either for themselves or for materials. Again comprehensive advice is available to help you ensure a safe workplace and safe systems of work (see References/Further Details section). In summary, areas for consideration include:-

- **Erection of the scaffolding** - loading; base (strength, stability); standards (vertical tubes) and ladders (horizontal



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members) - design, strength, suitability, bracing; ties and stability; putlogs, board bearers/transoms; toe boards and guard rails

- **After erection of scaffolding** - scaffold should be inspected regularly, and at least once a week after erection, following bad weather or high winds. The person inspecting needs to be competent and reports recorded on the prescribed form F91. An inspection checklist could be provided to supplement training.
- **Competence and training** - effective training of scaffolders is probably the most important factor in preventing accidents. Numerous courses are available (see Reference/Further Details section).
- **Protection of the public** - measures to protect the public and particularly children will be similar to those outlined above but there will also be an enhanced need for warning notices, barriers/diversions and appropriate levels of protection and supervision.

TOWER SCAFFOLDS

Accidents involving tower scaffolds are mainly caused by poor standards of erection and misuse. From published guidance (see References) about the erection, use and dismantling of scaffold towers the following areas of safety should be considered:-

- **General** - type of tower; manufacturers instructions; competencies
- Erection of tower - loading; vertical and horizontal members; ties and stability; working platforms; guard rails; toe boards and access.
- **After erection of the tower** - prohibit extension by ladders on the top platform; co-ordinated use of towers and associated precautions; inspection by competent person after exposure to adverse weather, and at least weekly (on prescribed form F91); careful dismantling.
- **Checking of towers** - checklists will help make maintenance programmes easier to monitor and control; should include base, castors, tubes and framework, joints, boards, guard rail and toe boards, bracing and stability.



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SUSPENDED ACCESS EQUIPMENT

Suspended access equipment is used to provide access to the exterior of structures for activities such as painting, cleansing etc. Safety considerations include safety of access and egress to all parts of the installation; erection and dismantling of temporary equipment; the working platform; safe working loads; the suspension system (including use of fibre ropes, winches and climbing devices; electrical installation for powered winches; the roof rig; training and protection of the public. Published guidance is available of all of these matters (see References)

CHECKLIST - ACCESS EQUIPMENT/LADDERS

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| 1. | Do you use access equipment in your workplace (i.e. ladders, step ladders, tower scaffolds, general access scaffolds)? | Yes No |
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Ladders

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| 2. | Do you have a maintenance system for ladders incorporating a register, user checks, periodic examinations and withdrawal of defective items? | Yes No |
| 3. | Is each ladder uniquely marked/referenced to aid maintenance procedures? | Yes No |
| 4. | Have you informed, instructed and trained all appropriate staff? Is this training recorded? | Yes No |
| 5. | 5. Have you considered issuing basic guidelines on the safe use of ladders etc.? | Yes No |

Other Access Equipment

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| 6. | Have you established maintenance and supervision systems for such equipment? | Yes No |
| 7. | Do you ensure the competency of erectors, contractors etc.? | Yes No |
| 8. | Have you informed, instructed and trained appropriate staff? Is this training recorded? | Yes No |



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9. Have you considered issuing checklist/basic guidelines on the safe use of such equipment? Yes No
10. Are manufacturers' instruction manuals retained and kept readily accessible (if appropriate)? Yes No

REFERENCES

1. Guidance Note CIS10 – Tower scaffolds (HSE)
2. Guidance Note CIS49 - General access scaffolds and ladders (HSE)
3. Booklet HS(G)150- Health and safety in construction. (HSE)

Useful Address

1. National Federation of Building Trades Employers, 83 New Cavendish Street, London W1M 8AD.