

PORTABLE LADDERS, STEPS AND TRESTLES

1.0 INTRODUCTION

Ladders and steps are among the most commonly used items of access equipment and perhaps the most misused. There are many proprietary devices designed to stabilise the top or bottom of a ladder and uneven ground can be accommodated with adjusters bolted to the stiles.

While ladders & stepladders are a valuable and easily provided means of access, the Health and Safety at Work Act 1974, section 2 requires employers to provide safe access and a safe system of work. The Provision and Use of Work Equipment Regulations 1998 also requires employers to provide work equipment that is safe and suitable for the intended purpose. Management Regulations 1999, regulation 3 identifies the requirement for suitable and sufficient risk assessment

The Work at Height Regulations, regulation 4 requires that work at height is properly planned, appropriately supervised; and carried out in a manner which is so far as is reasonably practicable safe:

- only by those persons competent to do so,
- that its planning includes the selection of work equipment, planning for emergencies and rescue and
- consideration of weather conditions where the work is outdoors.

Risk assessment is required under regulation 3 of the Management Regulations to identify the measures to be taken. Work at height is not to be carried out where it is reasonably practicable to carry out the work safely other than at height.

Where work is carried out at height suitable and sufficient measures are to be taken to prevent so far as is reasonably practicable any person falling a distance liable to cause personal injury. Such measures will include the provision of suitable training and instruction.

Where the measures taken above do not eliminate the risk of a fall occurring then so far as is reasonably practicable sufficient work equipment to minimise the distance and consequence of a fall are required.

In the selection of work equipment for work at height:

- collective protection measures are to be given priority over personal protective measures and
- account taken of the working conditions and risks to safety of persons at the place of work where the equipment is to be used,
- in the case of work equipment for access and egress, the distance to be negotiated, the distance and consequences of a potential fall and
- the duration and frequency of use, and

- the need for easy and timely evacuation and rescue in event of a fall.

Work equipment is to be selected which has characteristics including dimensions which

- are appropriate to the nature of the work to be performed and the foreseeable loadings, and
- is in other respects the most suitable work equipment for the task.

Ladders are best used as a means of getting to and from a workplace. They should only be used as a workplace where the risk assessment has demonstrated that the use of more suitable work equipment for the task is not justified because of the low risk and the short duration of the work, or existing features on site that cannot be altered.

If ladders are to be used, ensure:

- the work can be reached without stretching,
- the ladder can be fixed to prevent slipping, and
- a good handhold is available.

The longer the ladder the more problems there are in using it safely. It gets harder to handle, is more difficult to secure or foot effectively and it flexes more in use. Risk assessment may identify other safer options before using a ladder for access.

Where ladders are required for grounds maintenance purposes involving e.g. tree work, they should only be used where the top of the ladder can be rested against a reasonably flat surface, be stable, and used where the operation only requires the use of one hand, for example, the use of hand saws or secateurs. Power tools, e.g. hedge trimmers, chainsaws are not to be used while working from a ladder. (Work platforms should be used.)

Stepladders are used where access to an overhead area is required e.g. a ceiling, for low level access or where there is generally no flat surface to rest the top of a ladder. Stepladders should always be erected and used at right angles to the work and generally used at heights up to 3.5 metres. They are unstable and unsafe when working from the side. A flat, stable and level base is essential.

Ladders and stepladders owned by Poole Housing Partnership are for use by employees only, are not to be loaned out to third parties or to be used by other contractors carrying out work at the location.

2.0 CONSTRUCTION

Wooden ladders, steps and trestles must conform to BS 1129 or any superseding British or European Standard.

Aluminium ladders, steps and trestles must conform to BS2037 or any superseding British or European Standard. The standard currently classifies the equipment into three classes 1, 2 and 3 in decreasing levels of loading, class 1 equating to industrial, class 2 to commercial / light industrial and class 3 equating to lightweight domestic. Class 3 equipment is not recommended for regular industrial/commercial use.

3.0 INSPECTION AND RECORDS

Ladders, stepladders and trestles are to be inspected by a competent person on first receipt into the organisation.

At each location where ladders are kept, a register listing each ladder or stepladder owned by Poole Housing Partnership is to be established and maintained. Each ladder or stepladder on the register is to be marked with a unique number or letter for identification.

Ladders, stepladders and trestles are to be inspected monthly for faults and appropriate details recorded on the ladder check sheet. A faulty ladder or stepladder must not be used, is to be labelled as unserviceable and placed in a secure area until professional repair or disposal is implemented. Repair details are to be recorded on the register

Before using a ladder or stepladder, it should be inspected by the user to make sure that it is in sound condition and suitable for the intended purpose.

Where wooden ladders are used check:

- stiles are not damaged, split, buckled or warped.
- rungs are not loose, cracked, decayed, greasy or missing.
- where fitted, ropes, pulleys and fittings, for damage.
- condition of any repairs carried out.
- ladders are not painted or use made of painted ladders as the paint may hide faults.
- homemade ladders or ladders where makeshift repairs have been carried out. These are not to be used.

Where aluminium ladders are used check:

- signs of loose guide brackets and hinges. Ensure all rivets and fastenings are secure.
- the cord for fraying, worn or missing cords, or cords of incorrect length.
- that non-slip feet are not worn or damaged and that they project adequately to form a good surface bearing.
- that each section is straight and true and free from distortion. This is usually visible by sighting along the stiles.
- the rungs, stiles or treads for soundness, sharp edges or tread wear.
- that all four feet of steps and trestles are on the same plane when the steps or trestles are fully open.

- the operation of any locking bar.
- where fitted, ropes, pulleys and fittings for security.
- for corrosion, flaws or cracks.

4.0 STORAGE OF WOODEN LADDERS / STEPLADDERS

- Wooden Ladders, steps and trestles are to be stored in cool, dry areas under cover. They must not be stored outside in the open where they will sustain weather damage.
- Wooden Ladders are not to be hung so that their weight is carried on the rungs. Where possible, they should be stored suitably supported on edge, clear of the ground or held vertical in a ladder rack.
- Never leave ladder equipment out where it may invite children or others to use it without authority.

Aluminium ladders require less stringent conditions of storage than wooden ladders and do not need to be stored under cover.

5.0 ERECTION

The ladder selected should be of a suitable size and construction for the intended task. Ladders should be set up at an angle of 75° to the horizontal. (1 foot out at the base for every 4 feet of vertical height) ensuring the ladder rests against a solid surface capable of taking the weight when in use. Make sure there is always sufficient overlap between sections. Never use the last 3 rungs of a ladder.

Ensure the ladder is on a firm and level base, never on loose bricks, wood packing, a soft or a sloping surface. Never lean against fragile or unstable surfaces or fittings. Never lean a ladder against an external parapet wall or wall area adjoining a parapet wall, particularly if at high level.

Where necessary on soft soils, the ladder feet should be placed on a suitable board to prevent it sinking into the soft ground, suitable pegs and ties can be used to secure the base against slippage.

Where work is carried out from a ladder or where the ladder is used as a way to and from a workplace, it is to be secured against falling, this will usually be by fixing at the top or sometimes at the base. If required for very short duration work a second person should “foot” the ladder during use or use should be made of a stabiliser.

When accessing a landing place where it is necessary to dismount the ladder, stiles should extend a further one metre above the landing place unless other adequate handholds exist.

No attempt should be made to erect or use a ladder in a high wind.

When a ladder is placed in a position that may cause an obstruction (e.g. near a door), the area is to be clearly marked and the door either locked shut or secured in the open position.

6.0 USAGE OF LADDERS

- Persons who have any injury or impairment, which could affect their ability to work safely from a ladder, should not use ladders.
- Wear appropriate clothing, particularly suitable footwear, when using ladders.
- Ladder rungs should always be maintained clean and never allowed to become slippery with mud or greasy material.
- Tools or equipment should always be carried in a shoulder bag, tool-belt or holster attached to a belt so that both hands are free for climbing. Never use tools that require the use of both hands when working on ladders.
- Always climb and descend facing the ladder and use both hands to grip the stiles, not the rungs.
- Heavy loads should not be carried up or down ladders. Suitable lifting equipment should be used instead.
- When working on a ladder, always keep a grip with one hand and do not lean sideways excessively, as this will cause any unsecured ladder to slip.
- Only one person is to be on the ladder at a given time.

7.0 USAGE OF STEPLADDERS

- Stepladders are used where access to an overhead area is required e.g. a ceiling, for low-level access or where there is generally no flat surface to rest the top of a ladder.
- The stepladder selected should be of a suitable size and construction for the intended task.
- Examine the stepladder for faults before use, checking locking bars, stays, rivets or welds on treads and the condition of the rubber feet (particularly important when the stepladder is used on stone or marble surfaces).
- Stepladders are usually prevented from spreading by locking bars, stays, chains or cords. These should be regularly inspected, kept in good order and renewed whenever necessary.
- Stepladders should always be erected spread to their fullest extent, properly levelled for stability and used at right angles to the work. They are not designed for any degree of side loading and are unstable when used in this way.
- Generally used for access at heights up to 3.5 metres. A flat, stable and level base is essential. Work should never be carried out from the top platform, nor should overhead work entail over-reaching.
- The top tread should not be used as a foot support unless there is an extension above to provide a handhold.

- Only one person should use a stepladder at any one time and if the stepladder is used within a doorway the door should be wedged open securely.
- When carrying a ladder or stepladder make sure it is balanced horizontally or vertically, check the route to be taken to ensure there are no obstacles in the way or any slip/trip hazards. Be particularly aware of any overhead cables. Keep the front end above head height especially near doorways or going round corners.

8.0 LIGHTWEIGHT STAGING OR TRESTLES

Many of the general rules that apply for the safe use of ladders also apply to lightweight staging or trestles, in addition the following should be considered:

- Examine trestles before use, check for damaged bearers, hinges and stiles.
- Trestles are designed for lightweight work only and should be marked with the maximum permitted distributed loading (this is best achieved by also indicating the number of persons and their tools / equipment that can be on it at any one time).
- A working platform of at least 600mm width must be achieved. Use lightweight staging where possible. Where scaffold boards are used these should be supported at 1.2 metre centres. The top one third of the trestle should not be used as the access system will be unstable.
- Guardrails, barriers and toe-boards are required on all working platforms where a person could fall or materials that could fall and cause injury are placed.

9.0 LADDER STABILISING DEVICES

When needed for stability, use:

- Top stabilising bar to prevent sideways movement.
- Bottom stabilising device for slippery or wet surfaces.
- Clamp-on foot levelling device for sloping ground.

10.0 RISK ASSESSMENT

All work at height is to be assessed for risk as required by regulation 3 of the Management Regulations.

Where ladders/stepladders are to be used

- Always select a clean ladder/stepladder in sound condition and suitable for the intended purpose in the intended environment.
- Assess working heights, workplace surfaces, weather conditions, duration of the job, need for assistance etc.
- Select appropriate safety devices.
- Ensure correct clothing, particularly footwear.
- Always check for overhead obstructions, particularly cables.
- Investigate the requirement for securing the work area from access by third parties using cones or barriers.
- Investigate the requirement for hazard signage.