



Portable Ladders/Stepladders

It is likely that this week someone in Britain will die from an accident with a ladder, and more than a hundred people will be injured. Falling off ladders is a common cause of accidents, and therefore employers should take particular care to ensure they are properly constructed and used. Employees should be trained, instructed and given comprehensive information about the safe use of ladders and the associated risks and control measures.

Work which requires the use of ladders should be included in the risk assessment for the workplace.

The simple but essential safety steps given below will help you to control the risks when using ladders and stepladders, and you may find them useful as a safety checklist.

STEP 1 Is a ladder or a stepladder the best equipment for the work to be done? For example, it might be better to use a mobile tower or scaffolding. Or if access to high shelving is required 'Airport Steps' which are moveable but which can be fixed and fitted with a handrail and top landing platform may be more appropriate.

STEP 2 Is the ladder/stepladder strong enough? There are now 2 classes of ladder / stepladder, rated according to their safe working loads. Ladders marked with BS EN131 are given a maximum static **vertical** load rating. Ladders marked with BS2037 are given a **duty rating** which is calculated at a pitch of 75° to vertical.

Class 1 (Industrial) Maximum static **vertical** load 175Kg (27.5 stone)
Duty rating 130kg

Class 3 (Domestic) Maximum static **vertical** load 125Kg (19.5 stone)
Duty rating 95kg

A previous Class 2 (Light Trade) is no longer used as classification, its maximum static **vertical** load is 150Kg (23.5 stone).
Duty rating 110kg.

STEP 3 Is the ladder long enough?
Allow one metre of ladder length above the highest rung you use. Never stand on the top three rungs. Make sure extension ladders over 18 rungs have an overlap of at least three rungs. Shorter ladders up to 18 rungs need a minimum overlap of two rungs.

The height at which a ladder may be unsuitable for use depends on the space available, the nature of the work, the physical effort required to erect the ladder and the availability of a means to secure the ladder. 10 metres is the maximum length of ladder which one person can normally handle.

STEP 4 Is the ladder/stepladder safe enough?
Inspect it regularly.

Ladder Safety Checklist

- General sound condition (clean and dry, free from wet paint, oil, mud etc.)
- No Cracks
- No rungs missing or loose
- No stiles damaged or bent
- No warping or splitting (wood)
- No corrosion (metal)
- No sharp edges or dents (metal)
- No rungs bent (metal)
- Are the caps/rubber fittings on the feet in place and in good condition
- Is there any damage to the rungs/steps or to the top platform (stepladder)

Note: Never paint ladders or stepladders as this could hide dangerous defects. A wooden ladder can be protected with clear varnish or transparent rot-proofer.

Keep records of all inspections of ladders and stepladders.

STEP 5 **Putting up Ladders**
Place the base of the ladder/stepladder on a firm, level, dry, stable surface. If you are using an extension ladder, always extend it before climbing it. Rest the ladder against a solid surface, never against guttering or narrow or plastic features. When positioning the ladder make sure that the base cannot slip outwards. Leaning ladders are designed so that their safest angle of use is when every 1 measure out from the wall is matched by 4 measures up the wall, look for marks on the stiles of new ladders which show the safest angle of leaning.
Remember the rule 'One out for Four Up'.

Putting up Step-ladders

- Make sure the stepladder is locked into its correct position. Follow the manufacturers instructions.
- Rest it on a firm, level base, use a large flat board on soft ground.
- Position the stepladder front-on to the work.



STEP 6 Securing the Ladder

- Secure the bottom and top of the ladder by tying it (from the stiles, not the rungs) with rope or straps to a stable, fixed object.
- Tie the base of the ladder to stakes in the ground or use fixed blocks or sandbags or specially designed stabilisers to help prevent the ladder slipping.
- If it is not possible to secure the ladder, get another person to 'foot it' by standing with one foot on the bottom rung and holding a stile in each hand.

STEP 7 Storage of Ladders/Stepladders

Store in a covered ventilated area, protected from the weather and from dampness and heat. Store horizontally hanging from a stile, or rest the stiles on the floor. Never hang ladders or stepladders vertically. Store wooden ladders off the ground.

STEP 8 Training

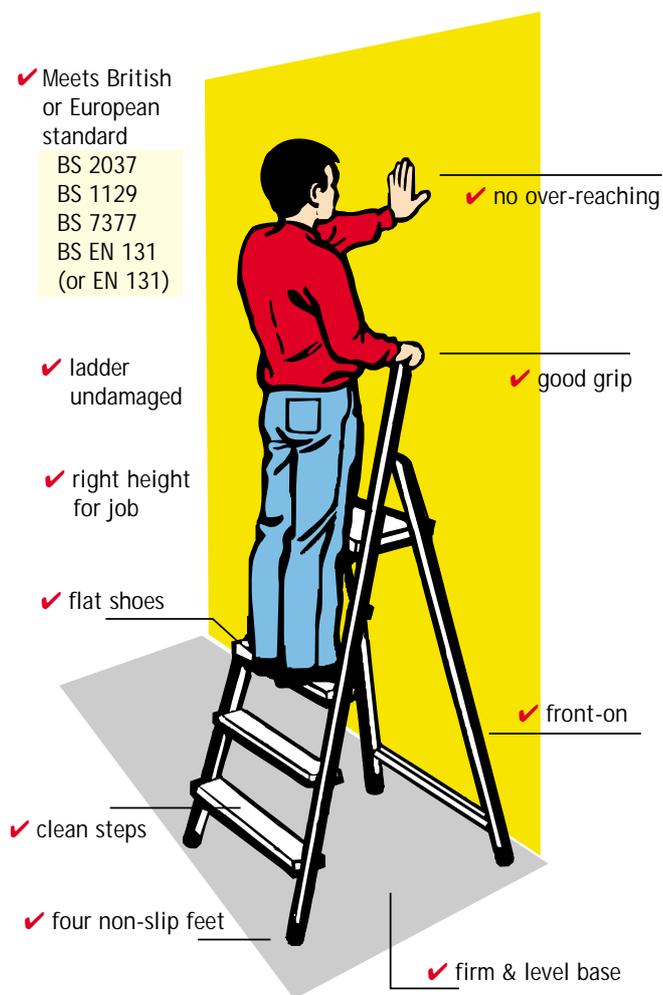
Train all your staff how to use ladders and stepladders safely, and how to spot defects.

NEVER

- over reach
- stand on the top handrail of a stepladder
- allow more than one person on a ladder or stepladder
- work sideways
- stand with 1 foot on the ladder and the other on another surface
- carry heavy items or long lengths of material up a ladder
- position a ladder in front of an openable door
- use a ladder in strong winds or near power lines
- use metal ladders or timber ladders with metal parts where any electrical hazard exists
- use a ladder the wrong way round
- stand the foot of the ladder on a kerb or on the highway
- support scaffold boards on the rungs of a ladder.

✓ The right way

- ✓ Meets British or European standard
- BS 2037
- BS 1129
- BS 7377
- BS EN 131
- (or EN 131)



case study

An employee sustained a broken leg when the stepladder he was using broke into 2 parts causing him to fall. The stepladder was a domestic rating and was being used on a very regular basis in a commercial environment.