

Use of ladders

Every year, many people are injured, some fatally, while using ladders. A fall from as little as two metres can be fatal. More than half the accidents occur because ladders are not securely placed and fixed.

A ladder is a means of access, not a safe working platform. Ladders should only be used for minor jobs of short duration which only require the use of one hand so that the other hand can be used to hold onto the ladder.

Alternative means of access

See whether an alternative means of access is more appropriate. If possible use a mobile scaffold tower or a mobile elevated working platform (cherry picker). Consider using contractors who have the proper equipment rather than trying to do the work yourself.

Ladder standards

Only ladders that meet the appropriate European standards should be used. EN/131 applies to both wooden and metal ladders. The following maximum permitted load must not be exceeded.

Class 1 (Industrial) ladder

The maximum static vertical load is 175kg

Class 2(Domestic) ladder

The maximum static vertical load is 125kg

European Standard Ladders are rated for a maximum permitted vertical static load of 150kg.

Choice of ladder

Ensure the ladder is suitable for the job it is required for, is of the correct construction material, and the appropriate length. Ladders should not be painted as this can hide defects.

For electrical work, only use ladders of a non-conductive material. Allow one metre of ladder length above the highest rung you use. Never stand on the top four rungs. We would suggest that ladders are not used for work in excess of five metres.

Stepladders

Stepladders are suitable for small jobs of short duration where it is not possible to rest a ladder against a wall or other support. They should only be used for minor maintenance at a height not exceeding two metres. The stepladder should have an "A" frame with a small working platform at the top, which can be used to hold tools and materials. The platform should never be used to stand on. There must be a mechanism to prevent the legs from spreading out and a safety catch to prevent the joint opening. They must be placed on firm level ground. The height of the steps should not exceed three times the width of the base.

Routine checks

Before use, the ladder should be checked to ensure that the general condition is sound and that it is clean and dry, free from wet paint, oil, mud or other slippery substances. In addition, checks should be made to ensure that there are:

- ❖ no cracks
- ❖ no rungs missing, bent or loose
- ❖ no stiles (outside uprights) damaged or bent
- ❖ no warping or splitting of wooden ladders
- ❖ no corrosion of metal ladders

- ❖ no sharp edges (metal) or splinters (wood)
- ❖ foot pads, caps and other rubber fittings in place and sound

Safe positioning

The ladder should be placed on a firm, level, dry surface. Where this is not possible, for example working on grass, the feet should be tied to stakes in the ground to stop slipping and a large flat board placed underneath the feet to prevent them sinking into the earth. The ladder should only be set against structures capable of supporting the load that will be imposed upon them. Ensure the ladder cannot be knocked over by passing traffic. Exclusion zones may be necessary to ensure unauthorised people do not pass underneath the ladder.

The ladder should be set at an angle of 75°, that is one unit of measure out from the wall, or support for every four units of measure up.

Securing the ladder

Both the bottom and upper part of the ladder should be secured by tying from the stiles to fixed objects. If ladders are frequently required to be used in the same position, then permanent ladder ties should be located into any suitable nearby masonry or brickwork. Extension ladders should have an overlap of at least three rungs.

Safe use

When using a ladder the following should be considered:

- ❖ keep your body facing the ladder at all times centred between the stiles
- ❖ don't reach too far forwards or sideways or stand with one foot on the ladder and one on something else
- ❖ do not over-stretch. Climb down the ladder and move it however time-consuming this might be
- ❖ keep both hands free to hold the ladder as much as possible. If you need to carry tools use a shoulder bag, belt holster or belt hooks. Use a rung hook for hanging a paint pot
- ❖ hold onto the ladder with one hand when working
- ❖ wear strong flat shoes or boots with dry soles and a good grip
- ❖ do not wear sandals, slip-ons or have bare feet
- ❖ do not use a ladder in strong winds or if it is raining
- ❖ only use a ladder if you feel completely confident
- ❖ do not use a ladder near overhead power lines

Routine maintenance

Ladders should carry an identification number and a maintenance log should be kept. As well as an inspection every time prior to use, an inspection and maintenance schedule should be employed to ensure every ladder is thoroughly inspected on a regular basis, depending on the environment where it is used and stored and the frequency of use. If any defects are found, the ladder should be withdrawn from use, suitably labelled and segregated for repair or safe disposal.

Cords, chains and ropes should be checked and replaced if defective, and pulleys should be lubricated regularly. Missing or defective pads or sleeves should be replaced. All ladders should be cleaned regularly before being stored. Climbing or gripping surfaces should be free of oil, grease, mud or other slippery substances. Timber ladders may be coated with a transparent non-conductive finish such as varnish, shellac or a clear preservative but not any opaque covering such as paint. Aluminium equipment should be given an adequate protective coating when it is subject to acids, alkalis or corrosive substances.

What the law says

The Safety, Health and Welfare at Work (General Application) Regulations 2007 come into force on 1 November 2007. They apply to employers and persons under their control and to the self-employed. An employer shall ensure that: -

- (a) a ladder is used for work at height only if the risk assessment has demonstrated that the use of more suitable work equipment is not justified because -
 - (i) the level of risk is low, and
 - (ii) the duration of use is short, or
 - (iii) existing features at the place of work cannot be altered,
- (b) any surface upon which a ladder rests is stable, firm, of sufficient strength and of suitable composition to support safely the ladder, so that the ladder's rungs or steps and any loading intended to be placed on it remain horizontal,
- (c) a ladder is so positioned as to ensure stability during use,
- (d) a suspended ladder is attached in a secure manner so that, with the exception of a flexible ladder, it cannot be displaced and swinging is prevented,
- (e) a portable ladder is prevented from slipping during use by -
 - (i) securing the stiles at or near their upper or lower ends,
 - (ii) effective anti-slip or other effective stability devices, or
 - (iii) any other arrangement of equivalent effectiveness,
- (f) a ladder used for access is long enough to protrude sufficiently above the place of landing to which it provides access, unless other measures have been taken to ensure a firm handhold,
- (g) no interlocking or extension ladder is used unless its sections are prevented from moving relative to each other while in use,
- (h) a mobile ladder is prevented from moving before it is used,
- (i) where a ladder, or run of ladders, rises a vertical distance of 9 m or more above its base, sufficient safe landing areas or rest platforms are provided at suitable intervals, where reasonably practicable, and
- (j) a ladder is used in such a way that -
 - (i) a secure handhold and secure support are always available to the employee, and
 - (ii) the employee can maintain a safe handhold when carrying a load unless, in the case of the step ladder, the maintenance of a handhold is not practicable when a load is carried, and the risk assessment has demonstrated that the use of a stepladder is justified because -
 - (i) the level of risk is low, and
 - (ii) the duration of use is short.