



University of  
St Andrews

## Ladder Safety

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## Ladders - Use, Storage and Maintenance (GUIDANCE)

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### Training

All staff are required to use ladders should receive appropriate training.

### Risk Assessment

A risk assessment of the work activity should be performed before the work starts. Risk assessments should take account of all foreseeable aspects of the work activity including materials/tools to be used and its duration. If this assessment considers a ladder is unsuitable for the work then another means of access should be provided e.g. an appropriate scaffold.

**Note:** Work carried out from a ladder should be limited to a very short period of time.

### Use of Ladders

The correct type of ladder for the work activity should then be chosen e.g. do not use a metal ladder if work on or near live electrical systems has to be performed.

It is important to check that the ladder is good condition before it is used. If faults in the ladder are identified, then it should be withdrawn from service immediately. Examples of items that should be checked for are:

- broken rungs or loose rungs;
- rot or decay;
- cracks or splints on the uprights of the ladder;
- tie rods are secure;
- corrosion or oxidation of metal ladders;
- if the ladder is warped.

**N.B.** You should never use a ladder that has been painted, as the paint may cover serious defects in the ladder.

Once a ladder has been inspected and approved for use, the following actions should be taken:

- The ladder should then be placed on level and firm ground and placed against a surface which is able to support the weight of the ladder, worker and appropriate equipment (e.g. ladder should not be supported on glass windows).
- Ladders should rest at an angle of 75° or 1 Unit horizontally to 4 Units vertically.
- The top of the ladder should be reasonably rigid and have ample strength to support the applied load. The top of the ladder should be securely fixed near the top to the upper resting place of the ladder. In circumstances where this is not possible, and the ladder is 6m or less, then a second worker should stand at the bottom of the ladder holding it in place. The second worker should hold the uprights with both hands and have one foot resting on the bottom rung.

**Note:** If it is not possible to fix a ladder of greater than 6m long then it should not be used and an alternative appropriate means of access provided e.g. a scaffold

- The rung 1.05m from the top should be the last rung used by workers. This is to ensure there is an adequate region on the ladder for the worker to hold on to.
- Only a minimum of light tools should be taken up a ladder. If practicable, tools should be held in a tool belt or a bag.

- Workers should not use a ladder for access to a height greater than 10m. If work requires access to this height or above then a suitable scaffold or another suitable means of access should be provided.

## DO NOT

- Use a make-shift ladder;
- Use a ladder that is too short
- Allow more than one person on the ladder;
- Overreach from the ladder;
- Use metal ladders near electric cables;
- Use a ladder with broken rungs;
- Support a scaffold board on a rung.

**For Extension Ladders** - When using extension ladders the sections should overlap as follows:

- For ladders of up to 5m there should be an overlap of at least 1.5 rungs;
- For ladders of 5-6m then there should be an overlap of at least 2.5 rungs;
- For ladders of 6m or greater, there should be an overlap of at least 3.5 rungs.

**For Step Ladders** - When using stepladders you should:

- Ensure the stepladder is located on firm level ground;
- You should ensure that the stays/chains/cords holding the two halves of the ladder together are in good condition;
- The top steps or platform of the stepladder should not be used for standing on unless there is a 1.05m hand rail above the steps/platform
- Only one person at a time should be on the stepladder.

**For Roof Ladders** - When using a ladder on a roof, then workers should only use a ladder that can pass over the roof ridge. This is to ensure the ladder does not slip off the roof.

A roof ladder should, also, have pads of a resilient material on the underside so that it does not damage the roof.

## Handling and Storage of Ladders

Ladders should be handled with care. If a ladder is dropped or hit by another item such that the ladder may be damaged, then it should be taken out of service and inspected by a 'Competent' person.

Ladders should be stored horizontally on racks with an adequate number of support points.

Ladders should not be stored near heat sources or near dampness or in the sunlight or in any other condition that may damage the ladder.

## Maintenance

Ladders should be annually inspected by a 'Competent' person. All ladders should be labelled with the date of the inspection and who inspected the ladder. An example checklist for ladders and stepladders is attached as Appendix [1](#) and [2](#).

Where a ladder fails such an inspection it should be withdrawn from service immediately.

Ladders should be kept clean and free from oil/grease/mud or any other item that may make the steps slippery or may damage the ladder.

## References

1. **Safe Use of Ladders, Step Ladders and Trestles.** Guidance Note GS31. Published by HSE Books. ISBN: 0 11 883594 7 (1990).
2. **Safe Use of Ladders.** HSE Information Sheet - Construction Sheet No. 2. Published by HSE Books. ISBN: 07176 0469 1. (1994).

**Appendix 1**  
**An Example Step Ladder Inspection Checklist**

School/Unit .....

Ladder Reference .....

Ladder Identification Number .....

Front Section	Condition OK	Condition Faulty
Identification disc missing or illegible	.	.
Stiles - Cracked, split, worn or broken	.	.
Stiles - twisted or distorted	.	.
Treads - Cracked, split, broken or worn	.	.
Treads - Loose (considered loose if they can be moved by hand)	.	.
Bottom diagonals - Loose or missing	.	.
Bottom diagonals - Twisted or distorted	.	.
Rubber feet - Damaged, worn or missing	.	.
Rivets etc. - Loose or missing	.	.
<b>Rear Section</b>		
Rear leg angles - Cracked, split, worn or broken	.	.
Rear leg angles - Twisted or distorted	.	.
Cross angles - Cracked, split, worn or broken	.	.
Cross angles - Twisted or distorted	.	.
Top hinge - worn or broken	.	.
Rivets etc. - Loose or missing	.	.
Rubber feet - Damaged, worn or missing	.	.
Rivets etc. - Loose or missing	.	.
Side stabilisers - Worn or broken	.	.
Side stabilisers - Twisted or distorted	.	.
Avdeloc bolts - Loose or missing	.	.

**Remarks** .....

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**Inspected by** ..... **Date**.....

## Appendix 2

### An Example Ladder Inspection Checklist

School/Unit .....

Ladder Reference .....

Ladder Identification Number .....

	Condition OK	Condition Faulty
Identification disc missing or illegible	.	.
Stiles - Cracked, split, worn or broken	.	.
Stiles - twisted or distorted	.	.
Rungs - Cracked, split, broken or worn	.	.
Rungs - Loose (considered loose if they can be moved by hand)	.	.
Rungs - Twisted, distorted or missing	.	.
Plugs - Damaged, worn or missing	.	.
Clutch - Damaged, worn or missing	.	.
Fittings - Rusted, corroded, damaged, worn or missing	.	.
Fasteners - Rusted, corroded, damaged, worn or missing	.	.
Ropes - Damaged, worn, badly deteriorated or missing	.	.

#### Remarks

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Inspected by ..... Date .....

[Step ladder inspection checklist](#) (RTF, 111 KB)

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## Contact

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