Health and Safety

Construction Bulletin

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Safe Ladder Use

Introduction

The ladder, such a versatile piece of plant used by thousands of tradespersons and home handymen every year, is unfortunately not always respected and used in the correct manner.

There is an old saying "what goes up must come down", this is very true in the use of ladders.

Climbing a ladder is usually very easy, but descending ladders can sometimes be a very hazardous undertaking. There are two ways of descending a ladder, intentionally and unintentionally, the latter being very hazardous to life and limb.

The types of injuries sustained from falling or slipping from ladders can be quite horrendous. Even a fall from a short distance can result in a person suffering severe injuries which in many cases can create partial or even full disability, and sometimes, sadly, result in loss of life.

Far too many workers in the construction industry tend to use ladders that are not suitable for the job, and stretching beyond the ladder's limitations can result in injuries caused by unnecessary falls.

Maintenance

Many users of ladders would not be aware of the importance of preventative maintenance. All ladders whether aluminium, fibreglass, or timber should be checked regularly to identify any defects. Any repairs required should be carried out immediately.

There are numerous ladder manufacturers scattered throughout New Zealand that have the expertise and parts to carry out minor and extensive repairs to all types of ladders when required. If it cannot be repaired, then it should be discarded and replaced with a new one.

Transportation

Improper transportation of ladders can result in unnecessary vibrations, causing ladder parts to become defective. This can be avoided by using roof racks that are purpose built to carry a particular type of ladder, including, most importantly, rubber cushioning fitted to the top of the roof rack.

Observations of OSH Inspectors

Over the last three months, an OSH inspector has been carrying out a very comprehensive check on ladder use on construction sites. It is pleasing to note that in most instances ladders were in good repair, but they were not being used correctly in a large number of instances.

The following areas of concern with regard to ladder safety were observed during the site visits:

- Incorrect angle placement of ladder.
- Ladder not restrained at top.
- Ladder not footed at base where practicable.
- Ladder not protruding 1 metre above working platform.
- Missing or broken rungs.
- Missing or broken stays on stepladders.
- Loose rungs to stiles.
- Working from a stepladder on the top tread.
- Ladder positioned incorrectly on an incline.

Many ladders had been repaired but in a very shoddy manner, for example, where rungs had broken, some were replaced by nailing a timber cleat across the stiles. This is totally unacceptable. It seemed to be common practice where stays were missing from

stepladders, to fit electrical cable instead of a new metal stay. Once again this is unacceptable.

Commercial Aluminium Ladder Steps

Within the space of one week, in one OSH branch area, 3 sets of aluminium ladder steps developed serious problems, with structural fractures occurring. Two of these sets resulted in serious harm accidents, and the third set was discovered by examination.

Fractures observed have occurred at the sixth step up where rivets hold the tread to the stile. In one case, the fractures were only on the inside of the step ladder when folded, and in another case the fractures were on both the outside and the inside. The fractures may be concealed by splashed concrete, plaster or paint and commence on the outside edge of the metal, stopping at the rivets until sufficient stress/wear causes further failure, resulting in the complete fracture or tear of the stile.

Employers, and others, should be encouraged to undertake regular examination of steps, paying particular attention to the rivet areas around the top tread, near where the steps fold.

The "she'll be right" attitude towards ladder use and maintenance has to stop as too many people are being maimed or killed due to falls from ladders.

Ladder Safety Checklist

Before using any ladder, ask yourself:

- Is using a ladder the safest and best work method for the job? Yes/No
- Is the ladder in good condition and suitable for the type and height of work? Yes/No
- Can the ladder be positioned close enough to the work area so that you won't need to overreach? Yes/No
- Can the ladder be restrained top and bottom? Yes/No
- Is the surface supporting the ladder firm and level? Yes/No

If the answer to any of these is no, consider another method of gaining access to the work area.