



Maintenance of ropes courses

Entertainment Sheet No 15

Introduction

This information sheet sets out what the Health and Safety Commission's Adventure Activities Industry Advisory Committee (AAIAC) considers good practice for the maintenance of 'ropes courses'. Advice on the competencies needed to lead an activity using a ropes course is provided in *Supervision of ropes courses*,¹ which should be read in conjunction with this information sheet.

Ropes courses are built structures of pole and steel which may incorporate natural features such as trees and are designed to challenge participants in activities above ground level.

Who is responsible for safety?

To ensure the safe use of ropes courses it is vitally important that you, as an activity provider, are aware of your responsibilities to maintain the equipment so that it can be used safely, paying particular attention to issues such as structural integrity and overall condition.

It is not only your responsibility. Those that manufacture, construct and use ropes courses have a responsibility to ensure the equipment is safe to use:

- Manufacturers need to ensure they make customers aware of the capabilities of the equipment and the maintenance needed to keep it safe. In addition, they should not knowingly sell inappropriate equipment that would result in risks to health and safety.
- Those that construct the equipment need to ensure that it is put together safely following manufacturers' instructions. They also need to check the suitability of the location in which the ropes are to be used and be aware that other factors, such as the weather conditions to which the equipment will be exposed, may have health and safety implications.
- As an activity provider, you need to ensure equipment is properly maintained, fit for purpose and in a condition that is safe to use. You have a duty under health and safety legislation to carry out a risk assessment in order to identify any significant hazards and put steps in place to control the risk of those hazards causing harm. The risk assessment should identify the need to have a suitable maintenance program in place.

- Group leaders also have a duty to ensure that when using the equipment they do not knowingly use it in ways that will cause avoidable damage. They have a responsibility to ensure that if damage occurs or if they notice that maintenance is needed, they report it so that action can be taken to make the equipment safe.

What could go wrong?

Risks associated with the maintenance of ropes courses include:

- faulty equipment causing participants to fall from a height (falls can cause injuries ranging from minor bruises to fatalities);
- faulty equipment causing other injuries, cuts, abrasions, etc;
- frayed ropes or cables, foot/hand holds may be excessively worn or not surely attached to the climbing frame;
- the frame may not be structurally stable;
- equipment may also be damaged by wear and tear;
- the actions of the users may need to be controlled to prevent unnecessary damage or the use of unsafe practices;
- damage to natural features such as trees (which are difficult to diagnose);
- access to course by non-approved and/or unsupervised persons;
- vandalism.

Frequently asked questions

I've been told I have to have the equipment tested on a monthly basis. Is this correct?

No. However, health and safety legislation does require equipment to be maintained so that it is safe to use. To do this you will need to have in place a maintenance programme that is appropriate to the equipment being used and the levels of risk, taking into consideration the usage, location and conditions. In addition, the programme should identify who should check what and when, and what should happen if something unsatisfactory is discovered.

Health and safety legislation does not require an elaborate system of testing, but the frequency of testing will need to reflect local conditions. Advice should be sought, where possible, from equipment manufacturers who can help to identify the appropriate inspection regime.

Do I have to use the manufacturers to undertake annual inspections?

No. Any competent individual or inspection service can carry out the inspection. However, it is a good idea to seek advice from specialist sources such as structural engineers where changes have occurred or if faults are suspected.

What do I have to do to maintain my ropes course?

For the most part, visually inspect it. By concentrating on a simple inexpensive system of looking for visible signs of damage or faults, and putting them right, you will prevent most accidents or serious damage to the ropes course from occurring. This should be done prior to every use of the course.

How can I tell if damage has occurred?

By looking! This is the most important maintenance precaution.

Inspection regime

The frequency of inspection is dependent on the type of equipment and how it is used. Cost-effective maintenance can be achieved by establishing a program combining checks by the user, formal visual inspections on a regular basis and combined inspection and testing where necessary. The following advice explains what is meant by each of these forms of inspection:

- **User checks** – The person using the equipment should be encouraged, after basic training, to visually check the equipment they use for any signs that it is not in a safe condition. The user should not attempt to dismantle the equipment.
- **Formal visual inspection** – To control the risk and monitor the user checks, a competent person (ie someone who has had the necessary, relevant training or experience) should carry out regular formal inspections which include visual checks undertaken in a systematic way. Additional checks should include: removing attachments; checking connections to ensure they are secure; checking for evidence of wear and tear (fraying, rotting, chaffing).
- **Combined inspection and testing** – Some faults may not be picked up by user checks or formal visual inspections. It is therefore important that combined inspection and testing is carried out by a person trained to do so at intervals appropriate to the type of equipment, usage, conditions and the risks. In addition to routine testing as part of the planned maintenance program, combined inspection and testing is also recommended if there is reason to suspect the equipment may be faulty, damaged or contaminated. This is especially important where these cannot be confirmed by visual inspection; or after any repair, modification or similar work to the equipment; or when its structural integrity needs to be established.

Formal visual inspection can detect about 95% of faults or damage. Operators should ensure that regular visual inspections are carried out by competent members of staff. Such staff need:

- training to detect signs of faults or damage;
- time to carry out the inspections properly;
- familiarity with the equipment so that they can detect changes.

References

¹*Supervision of ropes courses* Information sheet ETIS14 HSE Books 2002

Adventure activities centres: five steps to risk assessment HSE Books 1999 ISBN 0 7176 2463 3

Safe use of work equipment. Provision and Use of Work Equipment Regulations 1998. Approved Code of Practice and guidance L22 (Second edition) HSE Books 1998 ISBN 0 7176 1626 6

Further information

You can obtain further advice and guidance from the following organisations:

Ropes Course Developments Ltd, Hollands Farm, Tincleton, Dorchester DT2 8QP, Tel: 0870 429 6980, Fax: 0870 429 6980, e-mail:rcd@rcd.co.uk

PGL, PGL Travel Ltd, Alton Court, Penyard Lane, Ross-on-Wye, Herefordshire HR9 5GL, Tel: 01989 764211, Fax: 01989 765451, e-mail:enquiries@pgl.co.uk

Adventure Activities Licensing Authority (AALA), 17 Lambourne Crescent, Cardiff Business Park, Llanishen, Cardiff CF14 5GF, Tel: 02920 755715, Fax: 02920 755757, e-mail: info@aala.org

While every effort has been made to ensure the accuracy of the references listed in this publication, their future availability cannot be guaranteed.

HSE priced and free publications are available by mail order from HSE Books, PO Box 1999, Sudbury, Suffolk CO10 2WA Tel: 01787 881165 Fax: 01787 313995 Website: www.hsebooks.co.uk (HSE priced publications are also available from bookshops).

This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

For information about health and safety ring HSE's InfoLine Tel: 08701 545500 Fax: 02920 859260 e-mail: hseinformationservices@natbrit.com or write to HSE Information Services, Caerphilly Business Park, Caerphilly CF83 3GG. You can also visit HSE's website: www.hse.gov.uk.

This publication may be freely reproduced, except for advertising, endorsement or commercial purposes. First published 06/02 Please acknowledge the source as HSE.