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REFLECTIONS ON INSPECTIONS

Our inaugural news bulletin brings you essential information on inspections.

Why Inspect?

There are plenty of great reasons to inspect your ropes course, aside of the fact it's your legal and moral duty. You'll also reap the rewards of better customer care, an improved ropes course, plus it helps you to manage your assets and promotes good practice too.

Here's an overview on your inspection duties, and check out our helpful links for more detailed information.

Legal

As an operator you have a duty of care under the **Health and Safety at Work Act 1974** to ensure, for example, the following:

- a safe system of work
- a safe place of work
- safe equipment, plant and machinery
- carrying out risk assessments and taking steps to eliminate or control these risks

These are all good reasons to carry out thorough inspections for customers and staff and, as an operator, the following regulations are really important:

- ****LOLER** (Lifting Operations and Lifting Equipment Regulations 1998)
- **WAHR** (The Work at Height Regulations 2005)
- **PUWER** (Provision and Use of Work Equipment Regulations 1998)

Don't get bogged down in jargon though - the **HSE Website** is on hand to help you interpret the above legislation and regulations.



Standards & Best Practice

Unlike the above, these are not a legal requirement, however they can or will be used by enforcement bodies or in a civil claim as a means of measuring your safe systems and operations.

- **EN 15567:2015**
- **UK Ropes Course Guide 2015 V4.2**

They were both written by a group of ropes course experts and are highly valued by leaders in our industry.

The UK Ropes Course Guide says a 'comprehensive inspection regime' is essential for any ropes course so it is 'fit for purpose' and any 'deterioration of materials and equipment on a used facility is detected before failure occurs'. The guide adds: 'With older ropes courses now reaching the end of their serviceable life, and many new courses receiving vast numbers of recreational users, there is an ever increasing requirement for a professional approach to inspection processes.' The guide says ropes courses at smaller venues also need on-going inspection and maintenance.

Moral Duty

Your ropes course should be safe for customers and staff to use - that's why we say it's your moral duty to have regular inspections.

Asset Management

You'll get better value for money if you have regular inspections because they help prolong the life of your course by keeping on top of repairs, faults, problems before it's too late. That means periodical inspections by an inspection body and operational inspections by either an inspection body or a suitably competent person within your organisation.

Customer Care

Your customers will also benefit from a course that is regularly inspected and maintained as they are more likely to enjoy themselves and recommend it to family and friends.

Improve Your Course

A visit from an external inspection body is a great chance to get a fresh perspective on your site. They visit lots of other ropes courses and have extensive knowledge which could help improve your course.

When to Inspect?

Lots of our clients ask for the best time to inspect a site. Our advice is a course should be inspected:

- After it's been built and before it opens (the inaugural inspection)
- Periodically, normally once a year, by an external inspection body
- Operationally, normally once every three months but could be more frequent than that, by a competent person
- Following intensive use
- Following an accident, storm or major incident
- After the installation of a new activity
- Following major maintenance
- When it or a particular element are being brought back into use after a prolonged period of non-use
- Following an operational inspection where concerns have been identified
- As prescribed by the manufacturer

Check out [EN 15567:2015](#) and the [UK Ropes Course Guide](#) for more information.

What Type of Inspection?

A common misconception is to call for a 'Type A, B or C' inspection - there is no such thing. There is an inaugural and periodical that is carried out by a type A, B, or C inspection body - the letter refers to the level of independence between the inspector and the ropes course.

The [UK Ropes Course Guide](#) tells us the following:

Inaugural Inspections

When a new ropes course is built, before it is used, an inaugural inspection is recommended to be done by a completely independent inspection body (Type A) with no commercial interest in the ropes course or other conflict of interest ([EN 15567:2015](#)). They must also have their own public liability

insurance for such work and, crucially, operators should make sure an inspector is competent.

The inaugural inspection involves:

- Visual inspection
- Checking that the design calculation and / or tree strength assessment exists
- Check the current arboreal assessment to ensure that all trees used as a support system have been judged safe to use
- Assessment of Conformity to Design: verification that the course has been constructed in accordance with the design drawings (e.g. guy angles)
- A functional test carried out at height by an inspector (this means the inspector must have a comprehensive knowledge of courses and how they are used). They should also be qualified and competent to work at height



Periodical Inspections

Periodical inspections should be carried out by an inspection body at least every year and at most every 15 months to make sure your equipment, foundations and surfaces are safe.

If the inspection body has maintenance and construction capability, it's best to make sure this is kept totally separate so it doesn't interfere, or influence, their role as an inspection body

The process should include:

- Visual inspection
- Functional inspection
- Determine the replacement state of worn components
- Make sure it's done according to the manufacturer or supplier's instructions for maintenance.

A comprehensive inspection report should include:

- Date and place of the inspection
- Who carried it out
- A summary of what was inspected
- Results of the inspection indicating any defects observed
- Recommendations for any remedial actions
- Assessment, whether there are any misgivings about further use of any of the facility
- A recommendation on re-inspection

A copy should be kept with the technical documentation of the ropes course.

Operational Inspections

Is the level of rot in the timber pole dangerous? Does the wire rope meet the discard criteria and need replacing? These are some of the questions a competent staff member or inspection body will need to answer as part of their operational inspection every three months - or as directed by the constructor.

The constructor's recommendations should be a minimum and, based on the evidence around them, operators may wish to conduct more frequent inspections.

You'll be looking for cleanliness, condition of ground surface, sharp edges, missing components, excessive wear of moving parts and the structural integrity of the safety system (e.g. condition of cables), amongst other things.

An operational inspection should be comprehensive and thorough and carried out by a competent person without fear or favour.

Routine Visual Inspection

Every day your ropes course opens for use, you should first do a routine inspection taking in a visual check of critical components, an assessment of the general appearance of the course and surrounding environment, looking for such things as storm blown debris or damage, vandalism, hazards arising from unfinished or interrupted maintenance, etc. This is often done by an appropriately trained instructor. These daily inspections must include Personal Protective Equipment (PPE).

Items to be inspected

Go round with your inspector to learn more about your course - here are just some of the things they'll be looking for and testing:

Item	Potential Problems
Wooden	Rot and decay on the main poles
Wire rope	Corrosion Metal fatigue Reduction in diameter
Fixings & Components	Maillons SRBs Excessive wear at the point of load Corrosion
Trees	Inspector should have basic knowledge but you may also need the advice of an arboriculturist
Steel Structure	Metal fatigue, corrosion Fatigued and or damaged welding
Anchor points (top of the course for belayed activities, ground anchors for guy wires and ground belay points)	Visual inspection of corrosion Movement and or changes around the anchor point If considered necessary they will test the anchor point with a calibrated load cell **

** You can assume that anchor points on ropes courses that have completed and passed an inaugural inspection to EN15567:2015 have been designed and built to take a minimum load of 6kN. Anchor points on courses built before the standard or not inaugurated may not be able to meet this load. EN15567:2015 does not state that a test with a load cell to 6kN should be done at each periodical inspection. This should only be necessary if there is any concern with regard to the age of the anchor, the strength of the anchor or the materials to which it is fixed or the materials around it which are holding it in place.

How do I get a good ropes course inspector?

Operators often make their decision based on price, in our experience. But, this is not the only factor to consider.

Don't forget that an inspection body has overheads to cover: insurance, technical and specialist equipment to purchase and keep calibrated, training courses for inspectors so they are competent and up to date, etc.

Vertex's top tips for getting the best inspector include:

- Ask for references
- Look at their qualifications - are they relevant and up to date? (e.g. wooden pole inspector's certificate, wire rope inspector's certificate, licences to inspect devices at your site such as Powerfan, ISC ALF, etc.)
- What paperwork will they provide you with after the inspection - is it clear what they have checked, how they have checked it, what might need replacing, repairing etc.?
- Will they advise you on the longevity of your course and its components?
- Will they advise on how to prolong the life of your course?
- Or help you plan for repairs and maintenance?
- Can you accompany them when they carry out the inspection? It's a brilliant chance to learn more about your ropes course
- What is their rescue plan whilst inspecting?
- Do they have significant experience of the ropes course industry?
- Do you think you can work with them?
- Will they give you a verbal report before leaving the site?
- How long will it take?
- How much will it cost?

These are just some of the important things to think about when choosing an inspection body.



Who Inspects?

Anyone can set up an inspecting business and call themselves an inspection body. That's because there is no official external auditing process to verify their competency and knowledge.

Firms that provide certification, testing, inspection and calibration services are assessed by **UKAS** (UK Accreditation Service) - the national accreditation body for the United Kingdom, appointed by the Government. However, there is currently no process for those inspecting ropes courses to gain the **UKAS** mark.

ERCA offers the **ONLY** training and auditing system for ropes courses inspectors in the UK and Europe but it isn't an official stamp of approval.

Inspection bodies are rated by ISO standards but there is no legal need for a ropes course inspector to meet the requirements of the ISO or any form of official auditing or accreditation process. The ISO standards are used around the world with British Standard (BS), European Norm (EN), and International Organisation for Standardisation (**BS EN ISO/IEC 17020:2012**).

Type of Inspection Bodies as detailed in BS EN ISO/IEC 17020:2012

As already mentioned, the types of inspections body - A,B and C - refers to their level of independence.

Type A Inspection Body

- Totally independent of the parties involved
- Free from any conflict which could affect their judgement and integrity
- Not part of a legal entity that is engaged in design, manufacture, supply, installation, purchase, ownership, use or maintenance of the items inspected
- Not linked to a legal entity that is engaged in design, manufacture, supply, installation, purchase, ownership, use or maintenance of the items inspected.
- Not appointed on the boards or equivalent except where these have functions that have no influence on the outcome of an inspection
- Not involved in any contractual commitments, or other means that may have an ability to influence the outcome of an inspection

Type A inspection bodies can't be the operator, designer, builder or maintainer of any course that they are inspecting

Type B Inspection Body

- If the inspection body is part of the organisation, there must be a clear separation of the responsibilities of the inspection personnel from those of the personnel employed in other parts of the business
- The inspection body and its personnel should not engage in any activities that may conflict with their independence of judgment and integrity in relation to their inspection activities. In particular, they should not be engaged in the design, manufacture, supply, installation, use or maintenance of the items inspected

So in our industry this might relate to a large operator across multiple sites who directly employs an inspector to inspect their own courses but with the provisos mentioned above.

Type C Inspection Body

- The inspection body provides safeguards within the organisation to ensure adequate segregation of responsibilities and accountabilities between inspection and other activities
- The design/manufacture/supply/installation/servicing/maintenance shall not be carried out by the same person as the inspection

NOTE Inspections carried out by Type C inspection bodies cannot be classified as third party inspections because they are not independent like Type A inspection bodies.

A Type C Inspection Body can carry out the design/manufacture/supply/installation/servicing/maintenance but the same person CANNOT carry out the inspection of the same item, it has to be done by a different person (either within the same company or by another company)



** LOLER

LOLER requires any equipment and apparatus used in lifting people to be thoroughly inspected every six months by a competent person. For a ropes course this includes parts of your structure and/or your PPE and safety equipment.

There is no such thing as a LOLER inspector or a LOLER inspector's course for the actual ropes course. The regulations say a competent person not a qualified person.

However best practice (**EN 15567:2015**) requires a qualified and competent person to inspect your PPE and safety equipment.

An inspection body will meet the above requirements for your annual inspections, and you can ask them to inspect your PPE as well if they are qualified.

There are now excellent courses for PPE inspection to meet your needs for height safety and PPE equipment. Vertex is offering an **operational inspection course** for the ropes course - if you have staff members who hold these awards you could meet the requirements of the second inspection due each year.

Summary

Choosing the right inspection body is not just a tick-box exercise to get that piece of paper:

Look after your staff and customers with a safe experience and they will look after you. Your course will thrive through word of mouth by satisfied customers and well-trained staff will go the extra mile, invested in your business.

You can plan ahead for repairs and maintenance helping you budget for long-term success, prolonging and getting the most out of your course and equipment.

Not only is it your moral and legal duty - we hope we've shown how much more value inspections can add to your ropes course.

