

# Wessex Cave Club Training Tower



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# The Wessex Training Tower

*The objects of the Club shall be:*

*Initiating newcomers into the best traditions of the game.*

*Club Rule 1.2.a*

## **INTRODUCTION**

Caving is a risky activity.

Caving is a beneficial activity (social, physical, psychological).

As in many aspects of life there is a balance between risk and benefit. For cavers, the benefits of caving outweigh the risks. Likewise the Wessex Cave Club believes the benefits of the services it provides outweighs the risks and liabilities of providing them.

Notwithstanding, the prudent caver seeks to minimise those risks through proper training. The Wessex Training Tower provides the opportunity to train, practice and demonstrate various vertical techniques. It provides the opportunity to learn how to deal with those risks by training on the surface rather than in the more dangerous underground environment.

The tower is constructed of scaffold tubes and Kee Klamp™ fittings and provides a clear drop of 6m with a platform approximately 5m from the ground. Various options are provided which allow the rigging of a host of different scenarios for Ladder and Line, SRT, SRT Rescue, Pitch Hauling, Rigging Etc.

Whilst all practical efforts should be taken to reduce risk there comes a point when further removal of the risk will defeat the point of the activity.

## **RISK ASSESSMENT**

Various risks have been identified in the use of the Tower:

- Falling
  - People falling
  - Equipment falling
- Structural failure of Tower
- Suspension Trauma
- Failure of personal and rigging equipment.

We believe the likelihood of these risk occurring is low however if they do occur the severity is high with potential for serious injury leading to disability or death.

These risks are dealt with below.

### **Falling**

The risks are people or equipment falling from the Tower.

At risk are the people using the Tower and people on the ground in the vicinity.

The risk of people falling from the Tower can be mitigated by the use of proper rigging and safety techniques, i.e. the use of cows-tails traverse lines, etc.

The risk of equipment falling from the Tower can be mitigated by keeping loose equipment to an absolute minimum and ensuring that people on the ground remain at a safe distance. If it is necessary for people to enter the drop zone (Trainer, etc.) then they should wear suitable protective equipment, i.e. helmets.

### **Structural Failure**

At risk are the people using the Tower and people on the ground in the vicinity.

## The Wessex Training Tower

The Tower has been proof loaded to 1000Kg. Given a safety margin of 2:1 the maximum load shall be 500kg. This includes loads hanging on ropes, placed upon platforms or upon any part of the structure.

Kee Klamp™ fittings are rated to 900Kg with a 2:1 safety margin. [REF: [http://keesafety.com/images/uploads/us/documents/tuv\\_kk\\_en\\_2008.pdf](http://keesafety.com/images/uploads/us/documents/tuv_kk_en_2008.pdf)]. This rating far exceeds the design loading of the Tower.

Certain high load techniques could place additional stress on the structure such as certain SRT rescue techniques (cutting ropes, pitch hauling, etc). These higher loading techniques should only be carried out on the parts of the Tower that are in compression and within the confines of the four legs (i.e. not the out-riggers, access walkway, etc.).

To mitigate the risks regular safety checks should be carried out (see Six Month Inspection Form). The safe loading should be adhered to. People on the ground should remain at a safe distance from the Tower. If it is necessary for people to enter the drop zone (Trainer, etc.) then they should wear suitable protective equipment, i.e. helmets.

Any defects noted during use should be reported immediately and if necessary use of the Tower should cease until the defect has been rectified.

### **Suspension Trauma**

Suspension Trauma is a medical condition where an immobile person suspended vertically in a sit harness can quickly become unconscious due to constricted circulation of the legs. Furthermore upon release the toxins that built up in the legs during suspension can cause a heart attack. [REF [www.hse.gov.uk/research/rrpdf/rr708.pdf](http://www.hse.gov.uk/research/rrpdf/rr708.pdf)]. It is general accepted that the best way of dealing with Suspension Trauma is to release the person as quickly as possible within ten minutes or only release them after this time with medical supervision.

At risk is the suspended person (trainee).

To mitigate this risk ensure that competent persons are present when training novices etc. Use rigging methods that allow for easy lowering off. Ensure spare equipment and rope is available to effect a rapid rescue if necessary.

### **Failure of personal and rigging equipment**

At risk are the people using the Tower and people on the ground in the vicinity.

To mitigate the risk all personal and rigging equipment should be in good condition.

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## OPERATING PROCEDURES

### Using the Training Tower

- The facility is available for use by members and guests.

### To minimise risk it is recommend that the following procedures are followed:

- Perform the following pre-use checks:
  - Ensure all parts of the Tower are present and correct.
  - Ensure that there is no obvious damage, dents etc.
  - Ensure that anything which is supposed to be straight, is straight.
  - Ensure that anything which is supposed to be vertical is vertical.
  - Ensure that there are no loose items which could fall off onto people.
  - Ensure that any safety lines or rails are in good repair and properly fastened.
- Report any defects to the Committee, preferably on the form provided. If it is deemed necessary don't use the Tower.
- Use accepted rigging and pitch head techniques at all times. i.e. the use of cows-tails traverse lines, etc.
- Keep loose equipment to an absolute minimum.
- Ensure that people on the ground remain at a safe distance. If it is necessary for people to enter the drop zone (Trainer, etc.) then they should wear suitable protective equipment, i.e. helmets.
- Do not exceed the 500kg load on the Tower at any time.
- Ensure that competent persons are present when training novices.
- Use rigging methods that allow for easy lowering off.
- Ensure spare equipment and rope is available to effect a rapid rescue if necessary.
- Ensure all personal and rigging equipment is in good condition.
- Ensure all equipment is removed from the Tower and returned to storage after use.

### Commercial Instructors

- Permission must be obtained from the Committee before any commercial instruction.
- Commercial Instructors must sign the Instructors Form and provide copies of their insurance before they can use the Tower.

### Payment

- The Wessex Cave Club will make no charge for the use of the Training Tower. However all users are expected to sign in as day visitors. The signing in book is on the shelf inside the front door.

### Inspections and Defects

- The Committee shall ensure that an inspection is carried out every six months by a responsible person and recorded on the form provided
- Any defects noticed at any time must be reported to the committee.

# The Wessex Training Tower

## SIX MONTH INSPECTION FORM

These tests are to be performed every 6 month.

They should take no more than one hour to perform.

Once the defects have been corrected a new Inspection Form sheet shall be completed.

**Inspector:**

**Sheet No:**

**Date:**

- Ensure all parts of the Tower are present and correct.
- Ensure all the fasteners which are supposed to be tight, are tight.
- Ensure that there is no obvious damage, dents etc.
- Ensure there is no gross corrosion anywhere.
- Ensure that anything which is supposed to be vertical is vertical.
- Ensure that anything which is supposed to be straight, is straight.
- Ensure that there are no loose items which could fall off onto people.
- Ensure that any safety lines or rails are in good repair and properly fastened.
- Is there anything else which is obviously dangerous? If so record it below.

PASS	FAIL

**Defect(s) Identified:**

**Please report any defects to a Committee Member.**

# The Wessex Training Tower

## INSTRUCTOR'S FORM

Dear Instructor

The Training Tower at the Wessex Cave Club was built to allow members to practice ladder climbing and SRT outside of an actual cave environment. The facility is available for use by our members and guests.

Users of the Tower should be aware that the Tower was not built to any specific standards or specification. The Club makes no warranty as to the safety of the Tower or its fitness for purpose. We believe it to be safe and we inspect it periodically to verify that there are no obvious problems or deterioration. We will make the record of this inspection available to you if required. However, the Tower is provided on an as-seen basis and anyone who wishes to use it does so at their own risk.

As members of the British Caving Association Public Liability scheme, the club is covered for the use of the Tower by its members and guests. However, this cover does not extend to the risks associated with professional instruction. If members or guests wish to use the services of an instructor on the Tower this must be authorised by the Club Committee on each specific occasion.

We expect the instructor to have liability insurance cover of at least £2 million to cover his professional activities and to satisfy himself that the tower is safe and is suitable for the purpose to which he intends to use it. We leave the exact form of the risk assessment to the particular instructor, but we require him to sign the form below saying that he accepts the Tower is safe and fit for the purpose for which he will use it.

No charge will be made for the use of the Tower.

The Wessex Cave Club Committee

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### **TO BE COMPLETED BY THE INSTRUCTOR:**

I confirm that I will undertake an assessment of the use of the Training Tower and associated facilities at the Wessex Cave Club and take sole responsibility for the suitability and safety of those facilities whilst I am using them. I will inform the Committee of the Wessex Cave Club of any deficiencies or safety issues I discover while using the facilities.

I attach a copy of my professional indemnity and public liability insurance certificate which provides indemnity for a minimum of £2,000,000.

**Full Name:**

**Signed:**

**Date:**

**Please return with a minimum of two weeks notice to:**

The Secretary, Wessex Cave Club, Upper Pitts, Eastwater Lane, Priddy nr Wells, Somerset, BA5 3AX.