

## Rigging for Aerial Performance

### General Information:

- The course is run over a two day period (6hours per day including a 1 hour lunch break) and is split into classroom theory and onsite practical rigging. Recommended structure as follows: 10am – 1pm theory, 1pm-2pm Lunch, 2pm – 4 or 5pm (class size depending) practical. This will be repeated on the 2<sup>nd</sup> day.
- Maximum class size will be restricted to 16 delegates.
- Delegates should ideally come from an aerial performance or technical background with a reasonable level of physical ability/fitness (for practical 'At Height' demonstrations etc.) Delegates will be required to take notes during theory lessons.
- Each delegate is required to bring a short length of rope (min 2m) for practical knot tying demonstrations.
- If delegates do have their own harness then this should be brought on day two.
- There will be a theory written/multiple choice test at the end of the theory lesson on day two,

### Space requirements of host venue:

#### Classroom:

- Adequate seating & desks to be provided for delegates
- A stool for the course tutor
- A flip-chart or whiteboard WITH marker pens
- WIFI or Ethernet cable internet access will be required in order to access online video demonstrations
- We will provide a projector for these video demonstrations so a screen or blank wall space will be needed to project on to
- Light refreshments such as water, tea and coffee will also be required for the delegates as well as access to toilet facilities.

#### Rigging Space & equipment:

- A space with existing structural aerial rigging and ground anchor points. (Minimum height required 5m)
- A Scaffold tower, scissor lift, or catwalk gantry access to the rigging points will be required in order for the practical abseiling and rescue section of the course.
- A single piece of aluminium trussing (any length will do) that can be suspended and used for slinging demonstrations. Please advise if you are unable to provide this as we will need to arrange for a local supplier to provide and deliver at an additional cost.

## Pricing and other requirements

- Individual delegate costs are to be set by the host organisation, maximum class size will be restricted to 16 delegates.
- The Tutor fee for the two days POA + vat (within UK) and travel costs.
- Hotel Accommodation for the tutor consisting of 1 x single room will be required for 1 or 2 nights.
- Onsite parking may be required at the venue for the duration and may be charged for in addition if not available otherwise.

## Completion:

- Each successful delegate will be issued with a certificate of attendance & completion.

## COURSE CONTENT

### Theory Course Content

- Load calculations and how to calculate the different types of dynamic loads we apply to structures and our equipment.
- How to select your rigging equipment, the formula for converting minimum breaking loads into safe working loads or work load limits.
- What are factors of Safety? The different values of safety factors and what they mean
- Different types of equipment and their uses i.e. lifting equipment v PPE equipment, Steel v Alloy etc.
- Useful definitions, SWL, WLL, PPE, WAH, kN, KGF, MBL, MBS, LOLER etc.
- Different types of tests, i.e. Proof Loading, destructive tests, non-destructive tests
- Where to source your equipment?
- Access. What this means and the different types of access i.e. Rope access, MEWP access, gantry access, tall-a-scope access, scaffold towers etc.
- Legislation and what laws apply to us? WAH, LOLER, PPE regulations etc.
- Legal Requirements & Responsibilities:
  1. Risk Assessments
  2. Competence
  3. Equipment Certification
  4. Inspecting, testing and record keeping
  5. Liability – ‘Who’s Responsible?’
  6. Rigging Plans, Method Statements, Technical riders, Rescue Plans

### Video Demonstrations:

- Working at Height & Fall arrest, Work Positioning and Work Restraint.
- High Performance BBC Girl on Wire.



## Practical Course Content:

Which Knot? What are the best knots to use in different circumstances?

- Figure of Eight
- Clove Hitch
- Double Fisherman's
- Alpine Butterfly
- Bowline
- Which rope? Dynamic rope and semi static rope.
- What type of pulleys to use for different applications? Aluminium sheave v Steel sheave, PPE and Lifting Pulleys, Snatch blocks/Swing cheek blocks, traction pulleys.

Using PPE equipment to rig lifting and lowering devices and reeving.

- Demonstrating mechanical advantage. Reeving a 4:1 pulley block, 3:1, 2:1
- Using a traction pulley
- Using a belay device as a rescue/lowering method

Rigging with slings: Different sling configurations and how this affects the strength of your sling. A straight sling, choked sling as opposed to a basket.

Temporary terminations in steel wire rope: Wedge Sockets, wire rope grips, Flemish Eye Splice. How to choose the correct SWR using SWL's and MBL's.

Connectors.

- Different Carabiners, correct alignment, inspection, steel and alloy, screw-gates and triple action etc.
- Maillons. How to use maillons and different types of maillons for different applications. i.e. Pear maillons, oval maillons, delta maillons.
- Shackles. D shackles, bow shackles.

Trussing:

- What type of truss, how to interpret specification sheets and calculating the suitability of the truss.
- Slings trussing and how to do a correct truss wrap using the truss as a whole as opposed to individual cords.
- Correct alignment of trussing when assembling.
- Demonstrating putting the truss in compression as opposed to traction.

Basic abseil techniques:

- Assessing rescue situations and how best to plan for rescue, practical demonstrations and delegate participation of a snatch rescue on ropes.

