

SELF-STUDY GUIDE – Working at Height (Rope Suspension work)

Foreword:

The information in this study guide covers the knowledge requirements for performing rope access work using a rope suspension system.

Training can be contextualised for application in a range of work situations.

This course is intended to provide a robust set of skills so you can:

- work at height while under full rope suspension
- control risks
- select and use PPE that is appropriate for rope suspension work
- work as an effective member of a rope access crew

This study guide must be read in conjunction with the PACI working at height study guide. For any knot tying requirements, the PACI knot study guide must be consulted.



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The defining characteristic of all rope suspension work is the twin rope system.

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COURSE OVERVIEW:

The course consists of five elements as follows:

- MNMG237A/01: Identify work requirements
- MNMG237A/02: Prepare for work
- MNMG237A/03: Access and install equipment
- MNMG237A/04: Perform work at heights
- MNMG237A/05: Clean up work area

Assessment:

Assessment is designed to holistically group all skills together and consists of the following activities: (as a work pair)

- Complete a generic (or site-specific) permit for working at height
- Select, fit and adjust PPE for a real or simulated task on a roof surface
- Within a real or simulated work scenario, setup & complete a task on a roof surface using a fall prevention system
- Rescue a person from a roof surface (as part of a team)

Successful trainees will receive a nationally recognised Statement of Attainment.

Course checklist:

- Read this study guide
- Try to answer as many of the study guide questions as you can before your course starts
- Practice tying the 'Figure 8 loop' knot illustrated on page 34 of this study guide
- Bring your own basic PPE (harness & lanyard)
- Arrive at the course ready to start by 07:00
- Course will finish at 17:00 (finish time may vary – check with your instructor)
- All course timings including breaks (eg lunch etc) are at the direction of the instructor
- BYO lunch and crib / 'smoko' (bring own esky/cooler for your lunch)
- Wear enclosed footwear for training at height (no thongs allowed)
- Bring a hat and sunscreen – you will be training outdoors
- Bring a note book & pen

Note:

If you have difficulty answering any study questions, simply skip that question and move on to the next question. Your instructor will review missed or incorrect questions with you during the course.

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TAKE RESPONSIBILITY FOR MANAGING YOUR OWN LEARNING!

Upon successful completion of the course, you will be able to:

- Explain the basic requirements of relevant legislation and how this affects your work)
- Check, fit, and adjust all PPE and equipment used for rope suspension work
- Install solid and reliable anchorage systems
- Install and use diversion systems to re-direct rope trajectories
- Demonstrate vertical mobility (including traversing within a closed loop system)
- Build and use mechanical advantage systems
- Rescue a rope access worker from a range of situations
- Complete an assigned task which requires trainees to gain access to a position and perform a work task as specified by your trainer

Your rights during training:

If you believe that you are being treated unfairly or discriminated against, you have the following options:

1. Be forthright and outline your concerns to your course instructor – he/she has a duty to listen to your concerns and take positive corrective action.
2. If you are reluctant to discuss the matter with your instructor, you can contact your supervisor who in turn will contact your course instructor.
3. At the end of the course, you will be invited to complete a course feedback questionnaire – here you can outline your concerns. You can remain anonymous if you prefer, or you can elect to disclose your personal contact details. The questionnaire is reviewed by the parent RTO (PACI Pty Ltd) and you can be assured that all feedback is taken seriously and acted upon where necessary.
4. You can complain directly to the Queensland State Training Authority (STA). Their website is www.training.qld.gov.au . The STA will take action against any RTO or trainer/assessor who fails in his duties and obligations.

Your obligations:

1. You are expected to apply your self during training. This means that you need to actively participate in all training exercises, listen to your instructor and respect the advice that he/she gives in relation to the course material.
2. You are expected to arrive on time for training and to wear appropriate protective clothing – eg safety boots, trousers and long sleeved shirt (note that many sites have minimum PPE requirements – and shorts and T shirt are typically not permitted).
3. You are expected to have made an effort to read the study guide and tried to answer as many study guide questions as possible taking into consideration your work schedule and after hours commitments.

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Refund policy:

1. In most cases, your employer will be paying for your training (ie you won't be paying privately). However, you need to understand that there are no refunds given if you perform poorly and receive a result of 'not yet competent' (NYC).
2. If you paid for the course yourself, the same rule applies – that is, you won't receive a refund because you performed poorly or did not apply yourself (NYC).
3. In private bookings where you paid for the course yourself, if factors *beyond your control* force you to withdraw from the course before completion, you might be able to receive a partial refund. As a general rule, the following principles apply:
 - a) You should only need to complete those skills you missed out on – and not have to repeat the entire course again ; or
 - b) Your instructor might give you the option to come back and complete the remaining segments of training by joining with an already booked course at no charge (subject to course vacancies).
 - c) Check with your instructor for his/her refund policy...

Fees paid in advance:

In most cases, your employer is paying for your training and we would have received a purchase order. Once your training is completed, your employer is invoiced and then he/she pays for your training.

In other cases, you might be privately funding your own training (ie paying for the course yourself). Each training provider has their own cancellation policy, and this would have been made clear at the time your booking was made.

As a general rule, last minute cancellations (less than 24 hours) = no refund

Please refer to your trainers cancellation policy for further details...

LEGISLATIVE REQUIREMENTS – an overview

Note: Refer to the PACI working at height study guide for generic information about legislation.

Within Australia, rope access work has typically been viewed with some suspicion by the various State and Territory OHS authorities. The reason for this is complex but is undoubtedly linked to the fact that inspectors do not fully understand the nature of the work and the type of training undertaken by operators to achieve competency.

In more recent years, this situation has begun to change thanks to efforts of some hard working individuals who have promoted rope suspension work to the OHS authorities as a viable, self-regulating industry.

Some peak rope access organisations have developed codes of practice for the industry and at the same time, notified the OHS authorities of the existence and widespread use of the these codes.

The peak Australian body for rope suspension work is the ‘Australian Rope Access Association (ARAA). For further information about the ARAA, visit; www.araa.net.au

Another British organisation called IRATA also have members operating in Australia. IRATA originally established itself in the north sea off-shore drilling/oil industry but has expanded into the middle east and elsewhere. For further information about IRATA, visit; www.irata.org .

Codes of practice:

- ARAA code of Practice: 25/Sep/2005 (VER 2.0)
- ARAA checklist: Dec 2005

State Legislation:

Check your State website to download current legislation...

Eg;

- QLD Workplace Health & Safety Act 1995
- QLD Workplace Health & Safety Regulation 2007

- NSW OHS Act 2000
- NSW OHS Regulation 2001

- VIC OHS Act 2004
- VIC OHS Regulation 2007

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HARNESSES

Basic designs fundamentals

Full body harnesses used for rope suspension work must have a range of connective options – in particular, the option to fit a small chest grab to the front of the harness.



No chest grab fitted by manufacturer. User required to retro fit own device.



Chest grab sold as permanent fit by manufacturer.



Chest grab retro fitted by user.



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CHEST GRABS - Fitting



Correct



Incorrect

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LANYARD - double hook design essential for rope access work

For rope access work, it is common for the operator to fit a customised rig as shown in the images below.



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BOSUNS CHAIRS – essential for long duration suspension work

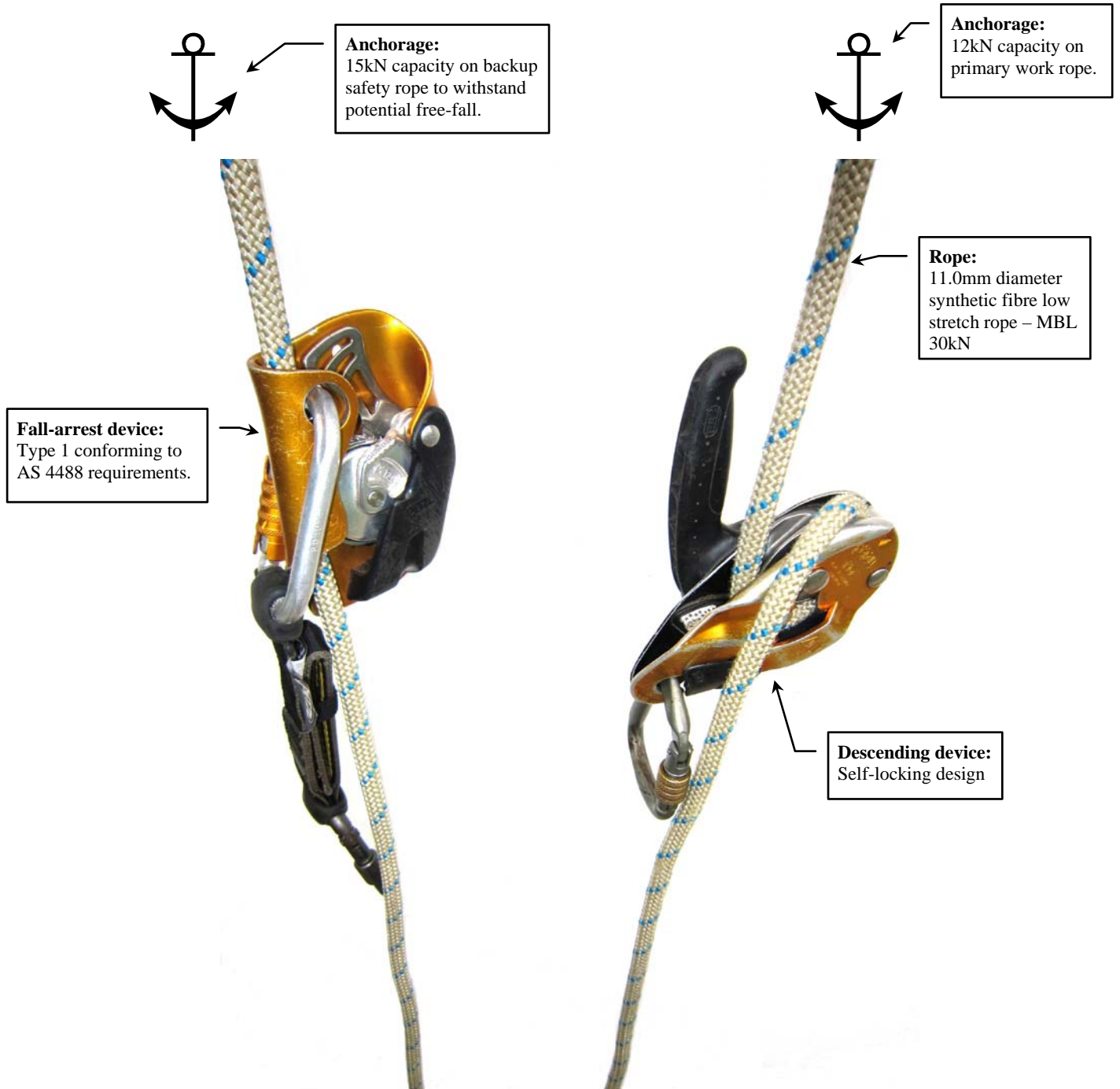


When using a bosuns chair, it is essential that workers are properly secured to both the descending device and the backup safety rope.

It is forbidden to sit in the chair without being attached to anything.



TWIN ROPE METHOD - Principle



OPTIONS WITH REGARD TO USE OF FALL-ARREST DEVICES

Note:

When using a Petzl Shunt as a backup fall-arrest device, there are certain known risks. The operator must pull the device down using a short cord. Never grasp the body of the device.



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The distance between the work rope and the backup safety rope must not exceed your arms reach.



This operator has chosen to attach his backup fall-arrest device to the *front* of his harness (at the upper D ring). In the event of a main line failure and a free-fall on to the backup safety rope, the post fall posture will distribute force more evenly across his back and lumber area and reduce (but not eliminate) the risk of suspension trauma.