



NPTC

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LEVEL 2

CERTIFICATE OF COMPETENCE

TO

CLIMB TREES AND PERFORM AERIAL RESCUE

ASSESSMENT SCHEDULE

This qualification does not involve the use of the chainsaw, but covers the minimum requirements for a ground person working with a climber

N P T C LEVEL 2 CERTIFICATE OF COMPETENCE TO CLIMB TREES AND PERFORM AERIAL RESCUE

Introduction

The scheme is administered by NPTC.

NPTC will:

- Publish
 - scheme regulations
 - assessment schedule
 - assessment material
- Approve centres to co-ordinate and administer the scheme
- Set standards for the training of Verifiers and Assessors
- Recruit, train and deploy Verifiers
- Manage verification
- Issue certificates to successful Candidates

The Certificate of Competence/ID Card

Certificates of Competence/ID Cards will be awarded to Candidates who achieve the required level of competence in the Units to which their Certificate relates.

Instruction

Attendance at a course of instruction is not a pre-requisite to an application for an assessment but potential Candidates are strongly advised to ensure that they are up to the standard that will be expected of them when they are assessed.

NPTC does **not** hold a register of instructors; however instruction will normally be available from recognised training providers and/or centres of further or higher education active in the areas covered by this certificate. Further information on training may be obtained from the local Assessment Centre.

Access to Assessment

Assessment Centres will be responsible for arranging assessment on behalf of a Candidate. Assessment may only be carried out by an Assessor approved by NPTC for that scheme. Under no circumstances can either instructors involved in the preparation of candidates, or the candidates work place supervisors, or anyone else who might have a vested interest in the outcome, carry out the assessment.

The minimum age limit for Candidates taking certificates of competence is 16 years. There is no upper age limit.

Assessment

Assessment is a process by which it is confirmed that the Candidate is competent in the Units within the award to which the assessment relates. It is a process of collecting evidence about his/her capabilities and judging whether that evidence is sufficient to attribute competence.

The candidate must be registered through an NPTC approved Assessment Centre for this qualification prior to assessment.

The schedule of assessment contains the criteria relating to:

- Observation of practical performance
- Assessment of knowledge and understanding

When all the criteria within the Units for which assessment has been sought have been completed the result(s) will be recorded on the Candidate Assessment Report Form(s).

Performance Evaluation

The result of each assessment activity is evaluated against the following criteria:

- 4 = Meets or exceeds the assessment criteria by displaying a level of practical performance and/or underpinning knowledge, with no 'minor' or 'critical' faults. (Competent).
- 3 = Meets the requirements of the assessment criteria for both the practical performance and the underpinning knowledge, with some 'minor' faults but no 'critical' faults. (Competent).
- 2 = Does not fully satisfy the requirements of the assessment criteria, being unable to perform the practical task satisfactorily or being deficient in underpinning knowledge leading to the recording of minor faults. (Not yet competent).
- 1 = Does not satisfy the requirements of the assessment criteria, being unable to perform the practical task satisfactorily or safely or being deficient in underpinning knowledge leading to the recording of a critical fault. (Not yet competent).

A list of registered Assessment Centres is available from NPTC. (www.nptc.org.uk)

Verification

Verification is a process of monitoring assessment; it is an essential check to confirm that the assessment procedures are being carried out in the way that NPTC has laid down. The overall aim of verification is to establish a system of quality assurance that is acceptable in terms of both credibility and cost effectiveness.

Approved Assessors will be subject to a visit by the Verifier at a time when assessments are being undertaken.

A selection of assessment reports completed by the assessor will be evaluated by NPTC.

Compliance with the verification requirements is a pre-requisite for Assessors remaining on NPTC's list of approved assessors.

Complaints and Appeals

NPTC and its Assessment Centres have a formal Complaints and Appeals procedure. In the event of any dissatisfaction with the arrangements and conditions of assessment, the candidate should first contact the Assessment Centre through whom the assessment was arranged and submit the complaint in writing.

For further information on NPTC's Equal Opportunities Policy and Complaints and Appeals Procedures, please refer to www.nptc.org.uk

Safe Practice

1. Assessors must hold a current 'First Aid at Work' Certificate.
2. It is strongly recommended that Candidates hold at least a recent, recognised 'Emergency First Aid' Training Certificate.
3. Appropriate Personal Protective Equipment (PPE) must be worn at all times. All PPE used must comply with AFAG Safety Guides 301, 401, 801, Health and Safety Executive publications and current legal requirements in terms of specification and use.
4. A First Aid kit meeting current regulations, of the appropriate size for the number of persons on site, must be available.
5. The candidate must be equipped with a personal first aid kit.
6. The Assessor must ensure a Risk Assessment has been carried out, and sufficient control measures implemented. In particular, the location of the site and weather conditions should be assessed, details of access, etc, which may be required by emergency services must be noted, as well as the nearest Accident and Emergency Hospital Unit. The means of contacting the emergency services must be established. Manual handling techniques must comply with current legislation.
7. Any necessary permissions must have been granted, and notifications made as appropriate: (e.g. Local Planning Authority, Forestry Commission, Forest Enterprise, Highways Authority, Private owners, Statutory undertakers, Police, etc).
8. All equipment being used for this assessment must comply with relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER) 1998.
9. Information may be sought from the relevant operator manuals or any other appropriate training or safety publication.
10. It is the responsibility of the Assessor and the Candidate to ensure that any additional requirements and provisions are met as relevant to this qualification.

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LEVEL 2 CERTIFICATE OF COMPETENCE TO CLIMB TREES AND PERFORM AERIAL RESCUE

Learning Outcomes

The candidate will be able to:

1. Undertake a risk assessment of tree climbing operations
2. Select, inspect and use a range of tree climbing equipment
3. Safely climb a tree, move around the crown and descend to the ground
4. Carry out aerial rescues from different situations

The assessment contains 2 compulsory units:

- | | |
|---------|-----------------------|
| Unit 1. | Climb a Tree |
| Unit 2. | Conduct aerial rescue |

Candidates must successfully achieve all Assessment Activities unless otherwise specified

Candidates must successfully achieve unit 1 before undertaking assessment for unit 2

Assessment and Site Requirements:

- This unit is intended for assessment using Rope, Harness and friction hitch climbing systems
- There must always be a minimum of three climbers on site (including the assessor)
- There must always be a person with a certificate in tree climbing and aerial rescue on the ground, with all necessary equipment to carry out an aerial rescue. This may be the assessor
- The assessor must not be 'the casualty', but may climb the tree in order to closely observe the rescue at close quarters, if appropriate. (If this is the case, there must be another qualified rescuer on the ground)
- 'The casualty' must be a trained climber, but does not necessarily have to hold a certificate of competence in tree climbing and aerial rescue. However, the assessor must be satisfied that the operation will be conducted safely, (risk assessment)
- Long hair to be tied back and jewelry removed
- Safe climbing methods must be used; use of climbing irons is prohibited unless the tree is being dismantled or felled, or a 'pole rescue' is being implemented
- The candidate is responsible for supervising all operations on the ground, except as otherwise agreed with ground staff
- The candidate must come to the assessment prepared and equipped to carry out all the assessment activities (including spikes for the pole rescue)
- In addition to the relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER) 1998, any ancillary equipment used for this assessment must also comply with relevant requirements of the Lifting Operations and Lifting Equipment Regulations (LOLER) 1998 where applicable.

The following should be available:

- Medium sized open grown tree (Minimum height for anchor point of 10 meters; branch walking distance at least 5 meters)
- Warning signs as appropriate
- Personal Protective Equipment as appropriate.
- A personal first aid kit.

Unit1: Climb a Tree

ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
1. Demonstrate knowledge of what is involved in a Risk Assessment	Risk Assessment must be specific to: <ul style="list-style-type: none"> - Site - Task - Machine Risk Assessment must contain: <ul style="list-style-type: none"> - Identified hazards - Evaluated risk - Control measures to be implemented - Emergency procedures - Risk Assessment must be communicated to operator
2. Select and wear Personal Protective Equipment (PPE, safety clothing)	Correct PPE and safety clothing for tree climbing: <ul style="list-style-type: none"> - Helmet with chinstrap - Appropriate footwear - Personal 1st aid kit - Knife with retractable blade
3. Carry out a pre-climb inspection of the tree	The pre-climb inspection should look for: <ul style="list-style-type: none"> - Evidence of cavities, decay or decay fungi - Deadwood and broken branches - Dead or flaking bark - V shaped unions - Cracks - Nesting insects - Timber characteristics of the tree species should be commented on - The presence of powerlines or telephone wires - Targets and obstacles underneath the tree
4. Demonstrate knowledge of the reasons for carrying out a pre-climb inspection of a tree	Reasons for carrying out a pre-climb inspection: <ul style="list-style-type: none"> - To ensure the tree is safe to climb - To determine the correct access method - To plan the route into and around the crown - To determine which anchor points are to be used
5. Prepare a plan of action	The plan of action should include such aspects as: <ul style="list-style-type: none"> - Access route into the tree - Method of access - Other methods of access are commented on - Choice of anchor points are identified and commented on - Plan for movement around the crown - The site is organised in respect of safety and legal requirements - Effective communication systems are established - Ground staff are deployed as appropriate
6. Demonstrate knowledge of animal species covered by the Wildlife and Countryside Act when tree climbing	Species include: <ul style="list-style-type: none"> - Bats - Red squirrels - Nesting birds

ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
<p>7. Select and inspect climbing equipment</p> <p>Demonstrate knowledge of work positioning principles</p> <p>Select climbing equipment</p> <p>Demonstrate knowledge of the effects on the tree of using climbing irons (spikes)</p> <p>Inspect climbing equipment</p>	<p>Work positioning principles include:</p> <ul style="list-style-type: none"> - The climber must be supported by a climbing line at all times. - Do not climb more than 250mm above the anchor point - The climbing rope must be kept as tight as possible and any slack must not exceed 500mm. <p>Appropriate climbing equipment should include:</p> <ul style="list-style-type: none"> - Harness with leg loops - Rope of suitable diameter, length and strength for the climbing line and for the friction hitches - Triple action auto-locking karabiners for main attachments - Adjustable strop or a system using both ends of the rope <p>They should be restricted to the following situations:</p> <ul style="list-style-type: none"> - When the tree is being removed (dismantled) - If necessary for an aerial rescue <ul style="list-style-type: none"> - Climbing irons cause unnecessary damage to the tree - The wounds inflicted may act as a point of entry for fungal infection and decay <p>Climbing equipment should be inspected for:</p> <ul style="list-style-type: none"> - Ropes and cord for friction hitches should be checked for cuts, frays, correct end terminations, burns and glazing, contamination and excessive wear - Karabiners should be checked for visible damage, corrosion and to ensure that the locking mechanism works correctly - Harnesses should be checked for damage to stitching, security of the anchor point(s), cuts and frays and general wear
<p>Demonstrate knowledge of the requirements of LOLER legislation</p> <p>Demonstrate the use of climbing equipment prior to ascent</p>	<p>Inspection and identification requirements for climbing equipment under LOLER regulations:</p> <ul style="list-style-type: none"> - Equipment should be inspected daily, before and following use by the climber - A weekly record of use should be kept for equipment subject to high levels of wear such as ropes - A thorough examination should be carried out at least every 6 months - Equipment should be marked for identification - Defective equipment should be labelled and withdrawn from service <p>A suitable climbing system is set up on the ground:</p> <ul style="list-style-type: none"> - Harness is put on and adjusted correctly - Ability to tie conventional climbing knots with one piece of rope as part of a three knot climbing system (e.g. bowline, friction hitch, stopper knot) is demonstrated
<p>8. Establish anchor points</p> <p>Use appropriate method for establishing the first and subsequent anchor points</p> <p>Demonstrate knowledge of the hazards associated with rope throwing techniques</p>	<p>Establishment of the anchor point should take into account:</p> <ul style="list-style-type: none"> - Suitability of the technique used - Accuracy of the throw - Rope organisation - Safety and position of the anchor point - Testing of the anchor point by thorough loading prior to ascent <p>Hazards associated with throwing techniques include:</p> <ul style="list-style-type: none"> - Muscular strain - Misdirected throws - Recoil of snapped throw lines - Safety of the anchor point if set high in the tree using a throw line

ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
9. Set up climbing system to be used	The climbing system should include: <ul style="list-style-type: none"> - Knots and friction hitches tied and set correctly - Karabiners locked and aligned correctly - Stopper knots used where appropriate - Correct attachment to the harness - The system is tested prior to ascent
10. Climb the tree	Climbing technique is observed taking into account: <ul style="list-style-type: none"> - Efficient use of body thrust technique - Efficient use of foot locking if used - Candidate is attached to the tree at all times - Appropriate selection of anchor points - Appropriate route taken up the tree - Correct use of adjustable strop or alternative system when changing anchor points - Loading new anchor points before previous anchor point is removed - Locking and alignment of karabiners - Work positioning techniques maintained throughout - Correct use of equipment
11. Select the final anchor point for the intended operation(s)	Considerations for the selection of the final anchor point: <ul style="list-style-type: none"> - Size, strength and structure (avoiding narrow angled branch unions) - Position in relation to the parts of the tree to be accessed - Use of equipment (e.g. Cambium saver) to minimise damage to the tree if appropriate
12. Branch walk	Branch walking is observed taking into account: <ul style="list-style-type: none"> - Appropriate route taken to the branches - Rope should be kept taught at all times - Rope should be kept in as straight a line as possible to the anchor point - Balance and control during branch walking - Efficient rope organisation - Establishment of a supplementary anchor point using an adjustable strop or a second climbing system on the other end of the rope - Controlled branch walking back into the stem
13. Descend from the tree Demonstrate knowledge of the consequences of an uncontrolled descent	Descent takes into account: <ul style="list-style-type: none"> - The speed of descent - Rope organisation - Control of the rope and friction hitch - Appropriate descent route - Controlled landing Rapid descent may result in: <ul style="list-style-type: none"> - Burns to the hands - Burns and damage to the friction hitch cord - Injuries from poor landings - Collision with other branches during descent
14. Demonstrate knowledge of the requirements for the retrieval and storage of equipment	Retrieval of equipment should take into account: <ul style="list-style-type: none"> - Lowering of cambium savers and other equipment from the tree if over hard surfaces or other obstacles - Ropes are coiled or stored in a rope bag - Wet ropes and equipment are dried before storage - Equipment is stored in a dry and aired environment

Unit 2: Conduct aerial rescue

ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
1. Demonstrate knowledge of what is involved in a Risk Assessment	<p>Risk Assessment must be specific to:</p> <ul style="list-style-type: none"> - Site - Task - Machine <p>Risk Assessment must contain:</p> <ul style="list-style-type: none"> - Identified hazards - Evaluated risk - Control measures to be implemented - Emergency procedures <p>- Risk Assessment must be communicated to operator</p>
2. Demonstrate knowledge of emergency procedures	<p>Emergency procedure should include:</p> <ul style="list-style-type: none"> - Stop all work immediately - Assess the situation - Make the area safe - Assess the casualty, give first aid if necessary - Send for the emergency services - Deal with the aftermath
3. Demonstrate knowledge of the information required by the emergency services in the event of an accident	<p>Emergency services will need to know:</p> <ul style="list-style-type: none"> - The location of the accident - Details of access and meeting point if applicable - Nature and time of injury - Any special hazards such as powerlines - Telephone number of caller so that the emergency services can call back
4. Demonstrate knowledge of general aerial rescue procedures	<p>General aerial rescue procedure:</p> <ul style="list-style-type: none"> - Plan the rescue - Suitable anchor point attained - Rescuer moves to the casualty - A redirect is used if there is a risk of a pendulum swing. - The casualty is secured to the rescuers climbing system to prevent separation and control the descent - The situation is made safe - Saw is switched off and tied to a branch or lowered to the ground if necessary - First aid is administered if necessary - Controlled descent
5. Rescue a casualty with undamaged rope long enough to descend on	<p>Rescue technique is observed taking into account:</p> <ul style="list-style-type: none"> - Suitable anchor point attained - Rescuer descends to the casualty, secures the casualty to the rescuer's harness with a direct attachment and attaches a chest strop if required - Rescuer reassures the casualty at all times - Rescuer makes use of help from the casualty where appropriate - Rescuer descends to the ground whilst operating both friction hitches - Controlled descent - Casualty is guided past branches where necessary - Correct use of equipment - Efficiency of the rescue
6. Carry out a second rescue of a casualty using a different technique	<p>The rescue method is observed taking into account:</p> <ul style="list-style-type: none"> - Suitable anchor point attained ('false anchor' if on a pole) - Rescuer secures the casualty to the rescuers own harness with a direct attachment and to a belay rope where appropriate - Chest strop is attached if appropriate - Rescuer reassures the casualty at all times - Rescuer makes use of help from the casualty where appropriate - Rescuer detaches the casualty from the tree - In a three person rescue the descent is controlled by ground person under the direction of the rescuer. An appropriate friction hitch or friction device with a fail-safe locking mechanism or system is used - In a two person rescue the descent is controlled by the rescuer using their own friction hitch - Controlled descent - Casualty is guided past branches where necessary - Correct use of equipment - Efficiency of the rescue

ASSESSMENT ACTIVITES	ASSESSMENT CRITERIA
<p>7. Demonstrate knowledge of basic first aid principles</p> <p>Demonstrate knowledge of the procedure for dealing with an unconscious casualty</p> <p>Demonstrate knowledge of the procedure for dealing with suspected spinal injuries</p>	<p>Basic first aid points:</p> <ul style="list-style-type: none"> - Check airway - Check breathing - Check circulation <p>Procedure for an unconscious casualty:</p> <ul style="list-style-type: none"> - Put in the recovery position - Keep the casualty warm - Monitor vital signs <p>Procedure for back or neck injuries:</p> <ul style="list-style-type: none"> - Do not move the casualty unless other life threatening injuries necessitate - Ensure the casualty is secure in the tree and wait for emergency services
<p>8. Demonstrate knowledge of actions to be followed after an aerial rescue</p>	<p>Main actions:</p> <ul style="list-style-type: none"> - Inform the supervisor/manager - Record details in the accident book - Quarantine the site and equipment if appropriate - Update the risk assessment - Reporting through RIDDOR