

**LEVEL 2 AWARD
IN
CHAINSAW AND RELATED OPERATIONS (QCF)**

**CS38 - CLIMB TREES AND PERFORM AERIAL
RESCUE**

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

ASSESSMENT SCHEDULE

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CS38 - 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 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 in accordance with AFAG 802
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. All recorded risk assessment information must be clearly legible and accessible to all candidates and completed for all locations where assessment activities are scheduled to take place.
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. This **would not** include the NPTC schedule of assessment for the duration of the assessment activity.
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.
11. Candidates must ensure they are complying with relevant legislative requirements applicable to the work being carried out.
12. If required, relevant records must be accurately kept.
13. Appropriate steps should be taken to maintain effective teamwork in respect of other persons on site during the assessment. This may include taking steps to ensure effective communication and safety precautions.
14. Assessors must ensure that they are within their verification time periods for the assessments they wish to undertake as per NPTC Assessor Code of Practice.

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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 3 compulsory parts:

- Part 1. Climb a Tree
- Part 2. Conduct aerial rescue
- Part 3. Identify tree species

Candidates must successfully achieve all Assessment Activities unless otherwise specified
Candidates must successfully achieve part 1 before undertaking assessment for part 2

The candidate will be the climber and will be referred to as either the candidate or the climber in the following guidance.

Qualifications and Credit Framework (QCF) – credit value

The Award to Climb Trees and Perform Aerial Rescue has a credit value of 5 credits on the QCF.

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 assessor may act as grounds person and assist with the lowering of a casualty if required e.g. Pole rescue
- '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 jewellery 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 and the Working at Height Regulations 2005 where applicable.

The following should be available:

- Medium sized open grown tree (Minimum height for anchor point of 12 meters; branch walking distance at least 5 meters)
- A standing stem or pole (Minimum height for anchor point of 5 meters, minimum diameter 380mm)
- A site with at least six common broadleaved species. If not all available then acceptable to supplement with branches, cones, leaves, twigs, pictures or diagrams
- Warning signs as appropriate
- Personal Protective Equipment as appropriate.

Part 1: Climb a Tree	
ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
1. Demonstrate knowledge of what is involved in a Risk Assessment	<p>The steps to completing a risk assessment may include:</p> <ul style="list-style-type: none"> - Identify the hazards - Decide who might be harmed and how - Evaluate the risks and decide on precautions - Record your findings and implement them - Review the assessment and update if necessary <p>An example of a hazard specific to the site and tree climbing operation is commented upon including who might be harmed and how and an appropriate industry control</p>
2. Select and wear Personal Protective Equipment (PPE, safety clothing)	<p>Correct PPE and safety clothing for tree climbing:</p> <ul style="list-style-type: none"> - Helmet with chinstrap - Appropriate footwear - Personal 1st aid kit - Knife with retractable blade or handsaw - Foot protection with good grip and ankle support - Non- snag clothing
3. Carry out a pre-climb inspection of the tree	<p>The pre-climb inspection should look for:</p> <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 - The presence of power lines 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	<p>Reasons for carrying out a pre-climb inspection:</p> <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. Demonstrate knowledge of the requirements of the Work at Height Regulations	<p>Requirements of the Work at Height Regulations include:</p> <ul style="list-style-type: none"> - All work at height is properly planned and organised - Those involved with work at height are competent - The risks from work at height are assessed and appropriate work equipment is selected and used - Equipment for work at height is properly inspected
6. Prepare a work plan	<p>The plan of action should include such aspects as:</p> <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
7. Demonstrate knowledge of animal species covered by the Wildlife and Countryside Act when tree climbing	<p>Species include:</p> <ul style="list-style-type: none"> - Bats - Red squirrels - Nesting birds
8. Demonstrate knowledge of the legal and environmental factors that may be present on the work site	<p>Legal and environmental considerations could be:</p> <ul style="list-style-type: none"> - Tree Preservation Order (TPO) - Conservation Area - Nesting Birds - Bat Roosts - Presence of other valuable flora and fauna. <p>Local planning authority contacted if the presence of a TPO is suspected</p>

Part 1: Climb a Tree (continued)

ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
<p>9. Select and inspect climbing equipment</p> <p>Demonstrate knowledge of work positioning principles</p> <p>Select climbing equipment</p> <p>Demonstrate knowledge of the minimum acceptable diameter for rope or cord used as friction hitches and arborist climbing ropes</p> <p>Demonstrate knowledge of the type of karabiners that should be used to connect the harness to the lifeline</p> <p>Demonstrate knowledge of the effects on the tree of using climbing irons (spikes)</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>Rope or cord used for friction hitches must be of a suitable type and have a minimum diameter of 8mm, ropes must have a minimum diameter of 10mm</p> <p>Karabiners that are used to connect the harness to lifeline must have a spring-loaded, self locking gate that requires at least three distinct movements to open it</p> <p>The use of climbing irons (spikes) 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>Inspect climbing equipment</p>	<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 along with the candidate having the ability to tie, dress and set knots used. - 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>Inspection and identification requirements for climbing equipment under LOLER include:</p> <ul style="list-style-type: none"> - Equipment should be subject to a pre use check by the climber - A written recorded interim inspection should be kept for equipment subject to high levels of wear such as friction cord or possibly ropes - A thorough examination should be carried out at least every 6 months - Equipment should be marked for unique identification
<p>10. Demonstrate the use of climbing equipment prior to ascent</p>	<p>A suitable climbing system is set up on the ground:</p> <ul style="list-style-type: none"> - Ability to tie conventional climbing knots with one piece of rope as part of a three knot climbing system is demonstrated
<p>11. Establish anchor points</p> <p>Use appropriate method for establishing the first and subsequent anchor points</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

Part 1: Climb a Tree (continued)	
ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
13. Set up climbing system to be used	<p>The climbing system should include:</p> <ul style="list-style-type: none"> - Knots and friction hitches tied and set correctly - Karabiners locked and aligned correctly - Stopper knots used where appropriate - Harness is put on and adjusted correctly - Correct attachment to the harness - The system is tested prior to ascent
14. Climb the tree	<p>Climbing technique is observed taking into account:</p> <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 stop 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
15. Select the final anchor point for the intended operation(s)	<p>Considerations for the selection of the final anchor point:</p> <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
16. Branch walk	<p>Branch walking is observed taking into account:</p> <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 stop or a second climbing system on the other end of the rope - Controlled branch walking back into the stem
17. Descend from the tree	<p>Descent takes into account:</p> <ul style="list-style-type: none"> - The speed of descent - Rope organisation - Control of the rope and friction hitch - Appropriate descent route - Controlled landing

Part 2: Conduct aerial rescue	
ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
1. Demonstrate knowledge of the key elements of a rescue plan for tree climbing operations	Emergency plans should include: <ul style="list-style-type: none"> - Safety of the rescuer and other co-workers - Identification of anchor points for intended rescue - Condition of equipment in use by the casualty - Method of attachment from casualty to rescuer - Type of rescue required - First aid needs of casualty - Other
2. Demonstrate knowledge of the information required by the emergency services in the event of an accident	Emergency services will need to know: <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 power lines - Telephone number of caller so that the emergency services can call back
3. Rescue a casualty where the casualty's rope is either damaged trapped or too short to descend on (2 person team)	Rescue technique is observed taking into account: <ul style="list-style-type: none"> - Initial communication with casualty - Coordination of ground crew to aid rescue - Request made for emergency services if applicable - If applicable all involved are aware of roles within the rescue - Suitable anchor point attained - Rescuer descends to the casualty - Area around casualty is made safe e.g. Chainsaw lowered to ground - Rescuer secures the casualty to the rescuer's harness with direct attachments 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 friction hitch - Controlled descent - Casualty is guided past branches where necessary - Correct use of equipment - Efficiency of the rescue
4. Rescue from a 'pole' (standing stem) using climbing irons (spikes) (2 or 3 person team)	The rescue method is observed taking into account: <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
Demonstrate knowledge of an alternative rescue methods	The rescue method is observed taking into account: <ul style="list-style-type: none"> - Suitable anchor point attained ('false anchor' if on a pole) - Rescuer secures the casualty 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 - 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 - Controlled descent - Casualty is guided past branches where necessary - Correct use of equipment - Efficiency of the rescue

Part 2: Conduct aerial rescue	
ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
5. Demonstrate knowledge of basic first aid principles	Basic first aid points of DRAB: <ul style="list-style-type: none"> - Danger - Response - Airway - Breathing
Demonstrate knowledge of the procedure for dealing with an unconscious casualty	Procedure for an unconscious casualty: <ul style="list-style-type: none"> - Put in the recovery position - Keep the casualty warm - Monitor vital signs
Demonstrate knowledge of the procedure for dealing with suspected spinal injuries	Procedure for back or neck injuries: <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
6. Demonstrate knowledge of actions to be followed after an aerial rescue	Main actions: <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

Part 3: Identification of tree species	
ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
1. Candidate to identify: Common broadleaved tree species	<ul style="list-style-type: none"> - Oak - Beech - Ash - Birch - Sycamore - Willow - Lime - Horse Chestnut - Poplar