

LEVEL 2

**CERTIFICATE OF COMPETENCE IN CHAINSAW AND
RELATED OPERATIONS**

ASSESSMENT SCHEDULE

CS46

**RE-POLLARD TREES AT A
MAXIMUM HEIGHT OF 5M**

(pre-requisite CS30.1, CS30.2, CS31)

Maximum recommended guide bar length:380mm (15")

NPTC LEVEL 2 CERTIFICATE OF COMPETENCE IN CHAINSAW AND RELATED OPERATIONS

CS46 – RE-POLLARD TREES AT A MAXIMUM HEIGHT OF FIVE METRES

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

At all times during the assessment, the chainsaw and other equipment must be operated in a safe manner in accordance with industry best practice, whatever the task being carried out.

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.

If these conditions are not observed this may result in the Candidate not meeting the required standard.

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 access a tree and descend to the ground
4. Carry out aerial rescues from different situations
5. Operate a chainsaw whilst maintaining a working position within the bowl of tree using a rope and harness.

The assessment contains 3 compulsory parts:

- Part 1. Access a tree
Part 2. Conduct aerial rescue
Part 3. Use of a chain saw from a rope and harness

Candidates must successfully achieve all Assessment Activities unless otherwise specified
Candidates must successfully achieve parts 1 and 2 before undertaking assessment for part 3

Pre-requisites

Prior to taking this assessment, candidates must have previously achieved units CS30 and CS31 from the NPTC Level 2 Certificate of Competence in Chainsaw and Related Operations

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 jewellery removed
 - Safe climbing methods must be used
 - 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)
 - The candidate should be equipped with a top or rear handled chainsaw in good condition with a maximum recommended guide bar length of 380mm (15").
 - The candidate should be equipped with sufficient fuel and oil, appropriate to the make and model of the chainsaws, for the assessment.
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- 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:

- Previously pollarded medium sized tree (Maximum working height of 5 meters from the ground)
- 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. Demonstrate knowledge of the legal and environmental factors that may be present on the work site.	Legal and environmental considerations could be: <ul style="list-style-type: none"> - Tree Preservation Order - Conservation Area - Felling Licence - Nesting Birds - Bat Roosts - Presence of other valuable flora and fauna.
3. 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 - Chainsaw PPE to be worn when operating the chainsaw
4. Select and inspect climbing equipment Demonstrate knowledge of work positioning principles Select climbing equipment Inspect climbing equipment Demonstrate the use of climbing equipment prior to ascent	Work positioning principles include: <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. Appropriate climbing equipment should include: <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 Climbing equipment should be inspected for: <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. A suitable climbing system is set up on the ground: <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
5. 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 power-lines or telephone wires - Targets and obstacles underneath the tree
6. 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

ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
7. Prepare a plan of action	<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
<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 of rope throwing</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
9. Set up the climbing system	<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 - Correct attachment to the harness - The system is tested prior to ascent
10. Access the tree	<p>Access technique is observed taking into account:</p> <ul style="list-style-type: none"> - Safe efficient use of ladders - Efficient use of body thrust technique - 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)	<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
<p>12. Descend from the tree</p> <p>Demonstrate knowledge of the consequences of an uncontrolled descent</p>	<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 <p>Rapid descent may result in:</p> <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
13. Demonstrate knowledge of the requirements for the retrieval and storage of equipment	<p>Retrieval of equipment should take into account:</p> <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 emergency procedures	Emergency procedure should include: <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
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. Demonstrate knowledge of general aerial rescue procedures	General aerial rescue procedure: <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 -
4. Rescue a casualty with undamaged rope long enough to descend on	Rescue technique is observed taking into account: <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
5. Carry out a second rescue of a casualty using a different technique	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
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

Unit 3: Use of a chainsaw from a rope and harness

ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
1. Brief the ground staff.	The climber should brief the ground staff about the following topics: <ul style="list-style-type: none"> - The risk assessment. - The tree hazard evaluation. - The planned method and sequence of work. - Individual responsibilities. - Communication. - Emergency procedures.
2. Achieve a working position and receive the chainsaw.	Position achieved to receive the chainsaw: <ul style="list-style-type: none"> - Anchor point established. - Supplementary anchor point established. - Proximity to work position achieved. - The climber directs the ground staff.
3. Start the warm (or cooled) saw in the tree.	One of the following methods should be used: <p>Top handled saw only</p> <ul style="list-style-type: none"> - Controls are set. - The bar and chain clear of obstructions and the operator. - The chain brake should be applied. - Top handle held with the right hand. - Starter mechanism engaged. - Starter cord pulled firmly and evenly. <p>Top or rear handled saw</p> <ul style="list-style-type: none"> - Controls are set. - Bar and chain clear of obstructions and operator. - The chain brake should be applied. - Front handle secured. - Starter mechanism engaged. - Starter cord pulled firmly and evenly. <p>Top or rear handled saw</p> <ul style="list-style-type: none"> - Controls are set. - Bar and chain clear of obstructions and operator. - The chain brake should be applied. - Rear handle / rear of saw gripped firmly by the legs. - Front handle firmly held. - Starter mechanism engaged. - Starter cord pulled firmly and evenly.
4. Change work position for cutting.	Work position for cutting attained: <ul style="list-style-type: none"> - Chain brake applied or saw switched off whilst position attained. - Saw released from strop if applicable and attached to a supplementary anchor point. - Climber in a balanced and stable position to use the saw. - Climber maintains awareness of activity below. - A supplementary anchor point is established.
5. Clear area of unwanted vegetation hazards ready for cutting	<ul style="list-style-type: none"> - Unwanted vegetation removed from work area to avoid trip hazard and ease chainsaw work. <ul style="list-style-type: none"> • Brambles • Ivy • Others

ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
6. Remove limbs using a chainsaw.	<p>Limbs and limb sections should be removed taking the following points into account:</p> <ul style="list-style-type: none"> - Appropriate working position attained. - Characteristics and properties of the wood allowed for. - Manageable sections selected. - Climber holding the saw using both the front and top/rear handles of the saw. - Side or reducing cuts used where appropriate. - Appropriate hinge left on sink cut sections. - Position of cuts on step cut sections and a complete overlap of cuts achieved. - Chain brake applied or saw switched off whilst breaking and casting sections. - Hand held sections are cast into a predetermined area. - The branch collar and/or branch bark ridge is identified when pruning. - The pruning cut is left as smooth as possible.
7. Demonstrate knowledge of chain saw handling in exceptional circumstances.	<ul style="list-style-type: none"> - When working at the extremity of limbs and cutting is required while the other hand is needed to maintain the work position. - When normal working position cannot be achieved. <p>Dangers associated with cutting long horizontal limbs at the butt end include:</p> <ul style="list-style-type: none"> - Splitting - Kick back <p>The procedure for releasing a trapped saw when working in the crown should be:</p> <ul style="list-style-type: none"> - Switch of the engine. - Release the saw from the climbing harness. - Attach the saw to the tree inboard of the cut or to a separate branch or tool line. - Pull the saw from the kerf, lifting the branch as necessary. - If necessary, use a second saw to release the trapped saw, cutting a minimum of 300mm (12") away from the trapped saw.