

**LEVEL 2**

**CERTIFICATE OF COMPETENCE  
IN  
CHAIN SAW AND RELATED OPERATIONS**

**ASSESSMENT SCHEDULE**

**CS43 - FELL UTILITY POLES**  
(Pre requisite: CS30)

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

This unit covers the felling of electricity/telegraph poles etc that are not connected to a circuit

## NPTC LEVEL 2 CERTIFICATE OF COMPETENCE IN CHAIN SAW AND RELATED OPERATIONS

### 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](http://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.

## 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. All chain saws used in the assessments must comply with Arboriculture and Forestry Advisory Group (AFAG) Safety Guide 301 in terms of safety features, and be a model and size suited to the task(s) required.
4. Recommended guide bar lengths should be observed, although variations may be accepted at the discretion of the Assessor where this is appropriate to the task.
5. Candidates should be familiar with the saw that they are going to use.
6. A spare working chainsaw must be available.
7. 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.
8. A First Aid kit meeting current regulations, of the appropriate size for the number of persons on site, must be available.
9. The candidate must be equipped with a personal first aid kit.
10. 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.
11. 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).
12. All equipment being used for this assessment must comply with relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER) 1998.
13. Information may be sought from the relevant operator manuals or any other appropriate training or safety publication.
14. The current Regulations for transport, handling and storage of fuel and oils must be complied with.
15. Provision must be made to avoid the risk of environmental pollution.
16. 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.**

## 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](http://www.nptc.org.uk)

## CS43 - FELL UTILITY POLES

### Learning Outcomes

The candidate will be able to:

1. Identify the Risk Assessment and Emergency procedures on a work site.
2. Select and prepare equipment required for safe and effective felling of poles
3. Prepare pole and adjacent area for felling operation
4. Fell poles safely and accurately using an appropriate method

The assessment consists of 2 compulsory Parts:

- |        |  |
|--------|--|
| Part 1 | Prepare Wooden Utility Poles for Felling |
| Part 2 | Fell Wooden Utility poles                |

This unit covers Utility poles that are not connected to a circuit

A minimum of two poles must be prepared and felled using an appropriate method

Candidates must successfully achieve all Assessment Activities unless otherwise specified.

### Assessment site requirements

The following should be available:

- Utility Poles with conductors and stays removed
- Rear handled chain saw in good condition [maximum recommended guide bar length: 380mm (15")]
- Sufficient fuel and oil for the assessment, appropriate to saw model
- Appropriate felling aids (e.g. felling lever, wedges, etc)
- Hand or vehicle mounted winch and ancillary equipment complying with current legislation
- 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.

**Part 1: Prepare Wooden Utility Poles for Felling**

| ASSESSMENT ACTIVITIES  | ASSESSMENT CRITERIA  |
|--|--|
| <p>1. Demonstrate knowledge of what is involved in a Risk Assessment</p>   | <p>Risk Assessment must be specific to:</p> <ul style="list-style-type: none"> <li>- Site</li> <li>- Task</li> <li>- Machine</li> </ul> <p>Risk Assessment must contain:</p> <ul style="list-style-type: none"> <li>- Identified hazards</li> <li>- Evaluated risk</li> <li>- Control measures to be implemented</li> <li>- Emergency procedures</li> </ul> <p>- Risk Assessment must be communicated to operator</p>  |
| <p>2. Select and wear Personal Protective Equipment (PPE, Safety clothing)</p>   | <ul style="list-style-type: none"> <li>- Chainsaw safety trousers</li> <li>- Chainsaw safety boots</li> <li>- Safety helmet</li> <li>- Eye &amp; ear protection</li> <li>- Chainsaw gloves</li> <li>- Non-snag outer clothing</li> <li>- Personal First Aid Kit</li> <li>- Whistle</li> <li>- Hi-viz. Jacket (adjacent to roads or other work operations)</li> <li>- Dust mask (if required)</li> </ul>  |
| <p>3. Demonstrate knowledge of planning the pole felling operation</p>   | <ul style="list-style-type: none"> <li>- The conditions of the site, (terrain, soil, weather)</li> <li>- Safe working distance of at least two pole lengths from others must be maintained.</li> <li>- No-one directly below on steep slopes.</li> <li>- Working in a 'pairing system'</li> <li>- No felling if wind conditions are such that control over the felling direction will be lost.</li> <li>- Operators on site should all have a whistle to raise the alarm in the event of an accident.</li> <li>- Ensure that all underground and overhead way-leaves have been accurately identified before felling commences.</li> <li>- Ensure that if an overhead power line is within 2 pole lengths a method of work in line with Electricity Company guidelines is chosen.</li> <li>- Signs must be erected warning others of the work carried out (including complying with Signing of Streetworks and Roadworks Regulations)</li> <li>- Additional measures taken if public likely to enter the two pole length exclusion zone, e.g. banks-man (look-out) near paths etc.</li> </ul> |
| <p>4. Prepare the site for felling</p>   | <p>Ensure cables / conductors are:</p> <ul style="list-style-type: none"> <li>- Disconnected</li> <li>- Removed by the utility company</li> </ul> <p>- Control measures identified in Site Specific Risk Assessment are applied</p> <p>Determine the felling direction in relation to:</p> <ul style="list-style-type: none"> <li>- Site obstacles and hazards</li> <li>- The method of extraction or conversion</li> </ul> <ul style="list-style-type: none"> <li>- Set up a felling bench if required</li> <li>- Remove debris from around the base of the pole(s) to be felled</li> <li>- Compact soil &amp; vegetation to facilitate felling at ground level.</li> <li>- Remove dead or suppressed trees and any other vegetation adjacent to the pole or in the felling direction that may be a danger</li> <li>- Inspect the felling area and adjacent trees for dead wood and insecure branches.</li> </ul>   |
| <p>5. Prepare the pole for felling</p> <p>Demonstrate knowledge of hazards that may be associated with preparing the pole to fell and felling the pole</p> | <ul style="list-style-type: none"> <li>- Remove vegetation from around pole to working height, if present with hand tools</li> <li>- Remove metalwork as appropriate from around the pole to working height</li> <li>- Live cables attached (from overhead and underground)</li> <li>- Loose cables or apparatus still attached to the top of the pole</li> <li>- Metal collar around the base of the pole</li> <li>- There may be metalwork underneath vegetation around the pole</li> <li>- Nails, screws and other metalwork on or in the pole likely to cause chainsaw damage or kick back injury to the operator</li> <li>- Rotten pole (potentially) resulting in an inadequate hinge</li> <li>- The pole may heavily impregnated with creosote or preservative that may become a hazard to health</li> </ul>  |

**Part 2: Fell Wooden Utility Poles**

| ASSESSMENT ACTIVITIES  | ASSESSMENT CRITERIA   |
|--|---|
| <p>1. Fell a pole accurately in the required direction using wedge(s) or a lever</p> <p>Demonstrate knowledge of the dangers of using a pushing chain</p> <p>Demonstrate knowledge of the techniques to be used to fell a pole that has "sat back" against the intended felling direction.</p> | <ul style="list-style-type: none"> <li>- Check all metalwork is removed from around the pole</li> <li>- Check overhead for loose apparatus or attached cables etc.</li> <li>- Choice of felling direction made</li> <li>- Select and prepare escape route(s)</li> <li>- Pole inspected for signs of rot or decay.</li> </ul> <p>A sink is cut to determine felling direction, using:</p> <ul style="list-style-type: none"> <li>- Safe stance</li> <li>- Top sink cut at an appropriate angle</li> <li>- Bottom sink cut as near to ground level as practicable</li> <li>- Cuts of appropriate depth</li> <li>- Sink cuts meet accurately</li> <li>- Sink facing in the chosen direction of fall</li> <li>- Chain brake used appropriately</li> </ul> <p>The main felling cut/s made using:</p> <ul style="list-style-type: none"> <li>- Safe stance</li> <li>- Level cut(s) at appropriate height at or above level of sink</li> <li>- "Pushing chain" or "pulling" chain</li> <li>- Appropriate aid tools are introduced correctly</li> <li>- Safe withdrawal of the saw</li> <li>- Chain brake as appropriate</li> <li>- A hinge is retained of adequate dimensions</li> <li>- Aid tools used safely to fell pole</li> <li>- A prepared escape route is used as soon as the pole begins to fall</li> <li>- Site checked for safety once pole has fallen</li> </ul> <ul style="list-style-type: none"> <li>- The saw can run back on the chain towards the operator causing lacerations, kickback or loss of balance</li> <li>- The saw must be locked in by the operator (e.g. leg behind the saw) to prevent this happening</li> <li>- Make a small cut into back of pole at position of felling cut and insert felling lever to lift pole over</li> <li>- Make new felling cuts to fell pole (in the direction of lean if site conditions allow)</li> <li>- Drive a wedge (not steel) into the main felling cut to lift pole over</li> </ul> |
| <p>2. Demonstrate knowledge of the dangers associated with Utility Poles once felling cuts are completed.</p>  | <ul style="list-style-type: none"> <li>- Stay wire(s) or cable(s) may be still attached to both the pole and anchor point(s) preventing the pole from falling</li> <li>- The pole may not move at all even when the back cut is completed to form an adequate hinge</li> <li>- The pole can bounce up or backwards off obstacles when it hits the ground</li> <li>- The pole can slide or roll readily on a slope</li> </ul>  |
| <p>3. Demonstrate knowledge of the procedure for attaching an anchor rope or a winch to the pole</p>   | <ul style="list-style-type: none"> <li>- Pole is climbed and work position effected by a trained operative using approved PPE and equipment and rope/winch is attached using e.g. adequate strop and shackle or a suitable knot</li> <li>- Rope/winch is lifted by a suitable means such as an arborists' hook on extending rods and attached using suitable knots, e.g. running bowline</li> <li>- A suitable ladder is used to access the top of the pole using an approved method, with ladder and climber made safe prior to attachment of the rope/winch to the pole</li> </ul>  |
| <p>4. Demonstrate knowledge of the safety considerations when selecting ropes or winches to aid felling operations</p>   | <p>Ropes:</p> <ul style="list-style-type: none"> <li>- The breaking strain of the rope should be known</li> <li>- The rope must not be frayed or damaged</li> </ul> <p>Winches:</p> <ul style="list-style-type: none"> <li>- The safe working load (S.W.L) limit or pulling capacity of the winch should be known</li> <li>- Safety features of the winch (e.g. shear pins) are identified</li> </ul> <p>Other components:</p> <ul style="list-style-type: none"> <li>- Cables, strops and shackles if used must be compatible with the strain to be applied</li> <li>- SWL of strops or slings used in various configurations must be known</li> <li>- A pulley of known SWL can be used to increase the pulling capacity</li> <li>- The top anchor point must be evaluated as adequate for the job</li> <li>- Capacities of strops or slings, shackles, pulleys, anchor points, etc. must accommodate increased load e.g. double –rigging with pulleys or e.g. using a "butterfly knot" in the rope.</li> <li>- Examine all equipment and reject if damaged.</li> <li>- Anchor points (e.g. ground anchors, trees or stumps) must be judged carefully for capacity to hold load.</li> </ul>   |

| ASSESSMENT ACTIVITIES  | ASSESSMENT CRITERIA  |
|--|--|
| <p>5. Demonstrate knowledge of the safety points that the chainsaw operator needs to consider in relation to the pull-rope or winching operation</p> | <ul style="list-style-type: none"> <li>- The rope/winch must be free from obstruction</li> <li>- Never choker a winch back on itself around the anchor point.</li> <li>- No-one must enter the triangle formed by the rope or winch when offset pulling.</li> <li>- Clear pre-determined communications are essential when an assistant is operating rope or winch.</li> <li>- The chainsaw operator is in charge of the operation and gives the instructions to the rope or winch operator.</li> <li>- Do not anchor the rope or winch from a position that is closer than two pole lengths from the pole</li> <li>- Do not pull directly downhill, but offset with pulley</li> <li>- Release rope or winch tension before working on felled pole</li> <li>- If chainsaw operator cannot clearly see rope or winch operator, a radio or third person must be used to communicate</li> </ul> |