



LEVEL 2 AWARD IN CHAINSAW AND RELATED OPERATIONS

CS43 - FELL UTILITY POLES

(Pre requisite: CS30)

Maximum recommended guidebar length: 380mm (15")

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

ASSESSMENT SCHEDULE

Version and date	Change detail	Section
1.2 November 2017	Added TQT details Deleted Learning Time	Qualification at a glance, Structure Throughout

NPTC LEVEL 2 AWRD IN CHAINSAW AND RELATED OPERATIONS

CS43 – Fell Utility Poles

Introduction

The scheme is administered by City & Guilds.

City & Guilds 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 Learners

The Certificate of Competence/ID Card

Certificates of Competence/ID Cards will be awarded to Learners 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 Learners are strongly advised to ensure that they are up to the standard that will be expected of them when they are assessed.

City & Guilds 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 Learner. Assessment may only be carried out by an Assessor approved by City & Guilds for that scheme. Under no circumstances can either instructors involved in the preparation of learners, or the learners work place supervisors, or anyone else who might have a vested interest in the outcome, carry out the assessment.

The minimum age limit for Learners 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 Learner 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 learner 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 Learner 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 City & Guilds. (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 City & Guilds.

Compliance with the verification requirements is a pre-requisite for Assessors remaining on City & Guilds 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 Learners hold at least a recent, recognised 'Emergency First Aid at Work (EFAW)' Certificate.
3. All chainsaws used in the assessments must comply with Arboriculture and Forestry Advisory Group (AFAG) Safety Guide 301, HSE Chainsaws at Work INDG317(rev1), in terms of safety features, and be a model and size suited to the task(s) required.
4. Recommended guidebar lengths should be observed, although variations may be accepted at the discretion of the Assessor where this is appropriate to the task.
5. Learners should be familiar with the saw, associated machinery and appropriate tools 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 by both the learner and the assessor. All PPE used must comply with AFAG Safety Guide 301, HSE Chainsaws at Work INDG317 (rev1), 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 (AFAG 802), along with appropriate fire fighting and suitable welfare facilities e.g. Hand cleansing wipes.
9. The learner **must** be equipped with a personal first aid kit in accordance with AFAG802.
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. All recorded risk assessment information should be clearly legible and accessible to all operators and completed for all locations where assessment activities are scheduled to take place.
11. Manual handling techniques must comply with current legislation.
12. Any necessary permission 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).
13. All equipment being used for this assessment must comply with relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER) 1998.
14. 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.
15. The current Regulations for transport, handling and storage of fuel and oils must be complied with.
16. Provision must be made to avoid the risk of environmental pollution.
17. It is the responsibility of the Assessor and the Learner to ensure that any additional requirements and provisions are met as relevant to this qualification.
18. At all times during the felling operation, learners must act in a way so as not to endanger themselves, the assessor or any other person or equipment. Work must be carried out to achieve the requirements of the assessment criteria in accordance with all relevant and current legislation and good practice guidance (e.g. INDG317, Chainsaws at Work, AFAG Guides 302, 303, 304 and 307).
19. If required, relevant records must be accurately kept.
20. 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.
21. 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.

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

Complaints and Appeals

City & Guilds 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 learner should first contact the Assessment Centre through whom the assessment was arranged and submit the complaint in writing.

For further information on City & Guilds Equal Opportunities Policy and Complaints and Appeals Procedures, please refer to www.nptc.org.uk

Learning Outcomes

The learner 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 utility poles
3. Prepare utility pole and adjacent area for felling operation
4. Fell utility 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

Learners must successfully achieve all Assessment Activities unless otherwise specified.

The Award to Fell Utility Poles has a credit value of 1 credit and a Total Qualification time (TQT) of 10 hours.

Assessment site requirements

- Two utility Poles with conductors and stays removed
- Rear handled chain saw in good condition [maximum recommended guidebar 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.

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Part 1: Prepare Wooden Utility Poles for Felling	
ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
1. Inspect the site prior to starting work	<ul style="list-style-type: none"> - Walk site and identify hazards - Assess the risks - Remove hazard or implement appropriate control measures - Confirm that site is acceptable for the operation - Report to the appropriate person if site or equipment is unsuitable
2. Select and wear Personal Protective Equipment (PPE, Safety clothing)	<p>PPE in accordance with health and safety requirements and Risk Assessment e.g.</p> <ul style="list-style-type: none"> - Chainsaw safety trousers - Chainsaw safety boots - Safety helmet - Eye and ear protection - Gloves appropriate for the task - Non-snag outer clothing - Personal First Aid Kit - Whistle
3. Demonstrate knowledge of planning the pole felling operation	<ul style="list-style-type: none"> - The conditions of the site, (terrain, soil, weather) - Safe working distance of at least two pole lengths from others must be maintained - No-one directly below on steep slopes - Operators on site should all have a whistle to raise the alarm in the event of an accident - Ensure that all underground and overhead way-leaves have been accurately identified before felling commences - New pole and conductors are identified - Signs must be erected warning others of the work carried out (including complying with Signing of Street works and Road works Regulations) - Additional measures taken if public likely to enter the two pole length exclusion zone, e.g. banks-man (look-out) near paths etc
4. Check and prepare chainsaw for operation	<ul style="list-style-type: none"> - Chain tension and condition checked for safe and effective use - Safety features checked for condition and function - External nuts and bolts checked for security - Chainsaw contains sufficient fuel and chain oil for operations
5. Prepare the site for felling	<p>Ensure cables/ conductors are:</p> <ul style="list-style-type: none"> - Disconnected - Removed by the utility company <p>Control measures identified in the Site Specific Risk Assessment are applied</p> <p>Determine the felling direction in relation to:</p> <ul style="list-style-type: none"> - Site obstacles and hazards - The method of extraction or conversion <ul style="list-style-type: none"> - Set up a felling bench if required - Remove debris from around the base of the pole(s) to be felled - Compact soil and vegetation to facilitate felling at ground level. - Remove dead or suppressed trees and any other vegetation adjacent to the pole or in the felling direction that may be a danger - Inspect the felling area and adjacent trees for dead wood and insecure branches
6. Prepare the pole for felling	<ul style="list-style-type: none"> - Remove vegetation from around pole to working height, if present with hand tools - Remove metalwork as appropriate from around the pole to working height <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"> - Live cables attached (from overhead and underground) - Loose cables or apparatus still attached to the top of the pole - Metal collar around the base of the pole - There may be metalwork underneath vegetation around the pole - Nails, screws and other metalwork on or in the pole likely to cause chainsaw damage or kick back injury to the operator - Rotten pole (potentially) resulting in an inadequate hinge - The pole may heavily impregnated with creosote or preservative that may become a hazard to health

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"> - Check all metalwork is removed from around the pole - Check overhead for loose apparatus or attached cables etc. - Choice of felling direction made - Select and prepare escape route(s) - Pole inspected for signs of rot or decay <p>A sink is cut to determine felling direction, using:</p> <ul style="list-style-type: none"> - Safe stance - Top sink cut at an appropriate angle - Cuts of appropriate depth - Sink cuts meet accurately - Sink facing in the chosen direction of fall - Chain brake used appropriately <p>The main felling cut/ s made using:</p> <ul style="list-style-type: none"> - Safe stance - Level cut(s) at appropriate height at or above level of sink - "Pushing chain" or "pulling" chain - Appropriate aid tools are introduced correctly - Safe withdrawal of the saw - Chain brake used appropriately - A hinge is retained of adequate dimensions - Aid tools used safely to fell pole - A prepared escape route is used as soon as the pole begins to fall - Site checked for safety once pole has fallen <ul style="list-style-type: none"> - The saw can run back on the chain towards the operator causing lacerations, kickback or loss of balance - The saw must be locked in by the operator (e.g. leg behind the saw) to prevent this happening - Make a small cut into back of pole at position of felling cut and insert felling lever to lift pole over - Make new felling cuts to fell pole (in the direction of lean if site conditions allow) - Drive a wedge into the main felling cut to lift pole over - Operate rope assisting system
<p>2. Demonstrate knowledge of the dangers associated with Utility Poles once felling cuts are completed</p>	<ul style="list-style-type: none"> - Stay wire(s) or cable(s) may be still attached to both the pole and anchor point(s) preventing the pole from falling - The pole may not move at all even when the back cut is completed to form an adequate hinge - The pole can bounce up or backwards off obstacles when it hits the ground - The pole can slide or roll readily on a slope
<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"> - The pole is climbed and work position attained by a trained operative using appropriate PPE and equipment and rope/ winch is attached to the pole - Rope/ winch is lifted by a suitable means such as an arborists' hook on extending rods and attached using suitable knots - A suitable ladder is used to access the top of the pole in accordance with good practice, with ladder and climber made safe prior to attachment of the rope/winch to the pole

Part 2: Fell Wooden Utility Poles (continued)

ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
<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"> - The safe working load (SWL) of the rope must be known - The rope must be in a serviceable condition <p>Winches:</p> <ul style="list-style-type: none"> - The safe working load (S.W.L) limit or pulling capacity of the winch should be known - Safety features of the winch (e.g. shear pins) are identified <p>Other components:</p> <ul style="list-style-type: none"> - Cables, strops and shackles if used must be compatible with the load to be applied - SWL of strops or slings used in various configurations must be known - A pulley of known SWL can be used to increase the pulling capacity - The top anchor point must be evaluated as adequate for the task - 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 - Examine all equipment and reject if damaged - Anchor points (e.g. ground anchors, trees or stumps) must be judged carefully for capacity to hold load
<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"> - The rope/ winch must be free from obstruction - Never choker a winch cable back on itself - No-one must enter the triangle formed by the rope or winch when offset pulling - Clear pre-determined communication is essential when an assistant is operating rope or winch - The chainsaw operator is in charge of the operation and gives the instructions to the rope or winch operator - Do not anchor the rope or winch from a position that is closer than two pole lengths from the pole - Do not pull directly downhill, but offset with pulley - Release rope or winch tension before working on felled pole - If chainsaw operator cannot clearly see rope or winch operator, a radio or third person must be used to communicate