



National unit specification

General information

Unit title: Fell Large Trees (SCQF level 6)

Unit code: HH4T 46

Superclass: SG

Publication date: December 2016

Source: Scottish Qualifications Authority

Version: 02

Unit purpose

This unit is designed to allow the chainsaw user to demonstrate their ability to safely fell larger trees. In the context of this unit “large trees” refers to trees with a diameter between 380mm and 760mm. unit “*Fell Small Trees*” is available for learners who only work with smaller trees. The unit is not suitable for felling trees with a diameter larger than 760mm. This unit has been specifically designed to meet the requirements of the Highways and Construction Training Association’s (HCTA) Chainsaw Operators Registration Scheme (CORS).

Outcomes

On successful completion of the unit the learner will be able to:

- 1 Plan tree felling operations.
- 2 Prepare to fell trees.
- 3 Fell trees.
- 4 Complete tree felling operations.

Credit points and level

0.5 National unit credits at SCQF level 6: (3 SCQF credit points at SCQF level 6)

National unit specification: General information (cont)

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Recommended entry to the unit

Entry to this unit is at the discretion of the delivering centre, however learners must be suitably trained and qualified in chainsaw use and maintenance, this could be demonstrated by achievement of units HH4N 46 “*Maintain a Chainsaw*” and HH4P 46 “*Clear Lying Timber*” or equivalent. Learners must also be trained in the safe use of winches; this could be demonstrated by achievement of unit HH52 46 “*Operate a Hand Winch*” or equivalent.

Core Skills

Achievement of this Unit gives automatic certification of the following Core Skills component:

Complete Core Skill	None
Core Skill component	Critical Thinking at SCQF level 5 Planning and Organising at SCQF level 5

There are also opportunities to develop aspects of Core Skills which are highlighted in the Support Notes of this Unit specification.

Context for delivery

If this unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

This unit is intended for use by chainsaw users such as term maintenance contractors, local authority grounds maintenance staff and those carrying out emergency works on highways. It has not been designed for the traditional forestry and arboriculture sectors, which has a much greater focus on the end use of the timber.

For the purposes of this unit the term “Large Trees” is used to refer to trees with a diameter of between 380mm and 760mm. The equivalent unit “*Fell Small Trees*” is available for those who will only require to fell smaller trees (up to 380mm).

Equality and inclusion

This unit specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence.

Further advice can be found on our website www.sqa.org.uk/assessmentarrangements.

National unit specification: Statement of standards

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Acceptable performance in this unit will be the satisfactory achievement of the standards set out in this part of the unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

Outcome 1

Plan tree felling operations.

Performance Criteria

- (a) Conduct a risk assessment.
- (b) Confirm the felling direction and danger areas.
- (c) Select appropriate felling aids.
- (d) Identify the cutting techniques to be adopted.
- (e) Establish own competence to proceed with felling operation.

Outcome 2

Prepare to fell trees.

Performance Criteria

- (a) Clear the area identified for work and escape routes.
- (b) Confirm the safe set up of ropes and winch systems.
- (c) Confirm signals to be used between rope and winch personnel.
- (d) Ensure felling aids are kept in the safe zones and within easy reach.
- (e) Comply with all relevant Health and Safety requirements and environmental good practice.

Outcome 3

Fell trees.

Performance Criteria

- (a) Remove lower braches.
- (b) Remove tree buttresses.
- (c) Cut the sink.
- (d) Bore/plunge cut the centre of the sink.
- (e) Back cut the tree above the level of the sink.
- (f) Use wedges to assist the felling operation.
- (g) Use a winch to assist in bringing down the tree.
- (h) Use planned escape route to move to safe distance.
- (i) Comply with all relevant Health and Safety requirements and environmental good practice.

National unit specification: Statement of standards

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Outcome 4

Complete tree felling operations.

Performance Criteria

- (a) Confirm the site is safe prior to commencing further operations.
- (b) Sned/delimb the tree.
- (c) Remove the crown.
- (d) Leave the site in a safe and tidy condition.
- (e) Ensure saw, guide bar and chain are left in a well maintained condition following completion of felling.
- (f) Comply with all relevant Health and Safety requirements and environmental good practice.
- (g) Keep accurate records as required.

Evidence Requirements for this unit

Evidence is required to demonstrate that learners have achieved all Outcomes and Performance Criteria.

Evidence is required of the learner's ability to **Plan, Prepare, Carry Out and Complete** the felling of a **minimum of three large** (diameter between 380mm and 760mm) trees

Evidence should be generated under realistic working conditions with the trees being felled in situ.

Given the obvious risks to the learners and others it is imperative that all relevant Health and Safety policies and procedures are fully complied with throughout this unit.

Evidence could consist of:

- ◆ Observation checklist of practical activities
- ◆ Completed Risk Assessment
- ◆ Written and/or recorded oral responses to questions
- ◆ Photographic/video evidence of practical activities



National unit Support Notes

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Unit Support Notes are offered as guidance and are not mandatory.

While the exact time allocated to this unit is at the discretion of the centre, the notional design length is 20 hours.

Guidance on the content and context for this unit

This unit has been specifically written to meet the requirements of the Highways and Construction Training Association's (HCTA) Chainsaw Operators Registration Scheme (CORS) CS4 "Fell Small Trees". Achievement of this unit in conjunction with other relevant units will demonstrate that the learner is suitably trained and qualified to undertake this work.

The centre must ensure that all learners are suitably trained and qualified in the use and maintenance of chainsaws prior to undertaking this unit.

The key vocational knowledge and skills covered in this unit are as follows:

- ◆ Appropriate personal protective equipment
- ◆ Appropriate ancillary equipment
- ◆ Direction of fall for trees to be felled
- ◆ Ensuring safety of felling area
- ◆ Reducing tree to manageable sections
- ◆ Appropriate cuts required to fell oversized tree
- ◆ Additional ancillary equipment that may be required for felling oversized trees
- ◆ Cuts used to eliminate tension and compression
- ◆ Handling aids used to reduce the need for manual handling
- ◆ Safe manual handling techniques
- ◆ Site instructions to follow when dealing with tree stumps
- ◆ Cleaning and maintaining the saw

Guidance on approaches to delivery of this unit

The unit is designed to be sequential, progressing from planning and preparation through to operation and finally completion of the task and maintenance. It is recommended that the unit is delivered in this sequence; however there may be opportunities to develop evidence during naturally occurring circumstances where this is safe to do so.

Delivering centres will require access to chainsaws and Personal Protective Equipment (PPE) and to a site containing suitable trees (of required size) to work on in order to allow learners to generate the required evidence. The centre should ensure that all relevant equipment has a recent valid certificate of inspection/examination.

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The learner should be given ample opportunities to develop their knowledge and skills in a safe environment prior to assessment.

Given the obvious risks to the learner and others from operating a chainsaw due emphasis should be placed on the importance of conducting a thorough Risk Assessment and on complying with all relevant Health and Safety requirements and Standard Operating procedures.

Where the deliverer and/or assessor have any concerns over the safety of any activities being undertaken then all delivery and assessment should be ceased immediately until the safety concerns are satisfactorily resolved. The centre must also ensure that the work site environment and weather conditions do not create unnecessary risk.

The centre should not proceed with any delivery or assessment of this unit until they are satisfied that the learner is suitably trained in the safe use and maintenance of a chainsaw and the use of a winch.

An assessor to learner ratio of 1:4 should not be exceeded for any practical aspects of delivery or assessment.

Guidance on approaches to assessment of this unit

Evidence can be generated using different types of assessment. The following are suggestions only. There may be other methods that would be more suitable to learners.

Assessments should be carried out in situ and the environment should mirror a realistic working environment as closely as is practicable.

Learners must complete a suitable and sufficient assessment of the risks hazards and risks associated with the work activity (a Risk Assessment). This should be documented in an agreed format (in line with Standard Operating Procedures) and could form part of the learner's evidence.

Evidence for the unit as a whole could be generated using a single project where the learner is required to plan, prepare for, carry out and complete the felling of a tree. If it is not possible to produce evidence for the whole unit during a single assessment, evidence could be generated on an Outcome by Outcome basis; however the learner should still be required to demonstrate their ability to safely carry out all the tasks required in the required sequence.

A portfolio or e-portfolio could be used to store and organise a learner's evidence. If this unit is being delivered in conjunction with other related units a single portfolio could be used, cross referenced to show where evidence can be integrated across units.

Centres are reminded that prior verification of centre-devised assessments would help to ensure that the national standard is being met. Where learners experience a range of assessment methods, this helps them to develop different skills that should be transferable to work or further and higher education.

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Opportunities for e-assessment

E-assessment may be appropriate for some assessments in this unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or social software. Centres which wish to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at www.sqa.org.uk/e-assessment.

Opportunities for developing Core and other essential skills

There is no automatic certification of Core Skills or Core Skills components in this unit, however there may be opportunities to develop the Core Skills of *Problem Solving* and *Working with Others* at SCQF level 5.

This Unit has the Critical Thinking and Planning and Organising components of Problem Solving embedded in it. This means that when learners achieve the Unit, their Core Skills profile will also be updated to show they have achieved Critical Thinking at SCQF level 5 and Planning and Organising at SCQF level 5.

History of changes to unit

Version	Description of change	Date
02	Core Skills Components Critical Thinking and Planning and Organising at SCQF level 5 embedded.	22/02/17

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General information for learners

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This section will help you decide whether this is the unit for you by explaining what the unit is about, what you should know or be able to do before you start, what you will need to do during the unit and opportunities for further learning and employment.

This unit is suitable for you if you are required to fell large trees, trees that are between 380mm and 760mm in diameter, as part of your work. Before starting this unit you will need to be suitably trained and qualified in the use and maintenance of a chainsaw.

The unit contains four Outcomes, the first two cover the preparation and planning required before starting to fell trees, including carrying out a risk assessment. The third Outcome covers the practical work required to fell trees safely. Finally, Outcome 4 covers completing the work and returning the site to a clean and safe condition.

This unit has a practical focus and the assessments will reflect that, you will be observed carrying out the range of tasks required but you will also have to produce a risk assessment.

This Unit has the Critical Thinking and Planning and Organising components of Problem Solving embedded in it. This means that when you achieve the Unit, your Core Skills profile will also be updated to show you have achieved Critical Thinking at SCQF level 5 and Planning and Organising at SCQF level 5.