



City & Guilds Level 3 Certificate of Competence in Felling and Processing Medium Trees Over 380mm and up to 760mm (0039-33)

September 2022 Version 1.1

Assessment Pack – Centre and Candidate Version

Version and date	Change detail	Section
1.0	First version	
1.1 September 2022	Formatting changes Updated logo Updated 'Sources of general information'	Throughout Front cover Appendix 2

Contents

Introduction	3
304 - Felling and processing medium trees over 380mm and up to 760mm	4
Appendix 1 Practical Table	12
Appendix 2 Sources of general information	13

Introduction

This assessment relates to the unit in the Qualification handbook. The assessment can be achieved at pass only. If any task is not yet met the candidate is unsuccessful.

This assessment is for unit 304 Felling and Processing Medium Trees Over 380mm and up to 760mm covering the following learning outcomes:

1. Carry out the felling and processing of medium sized trees over 380mm and up to 760mm

General guidance on the requirements for assessment can be found in the Assessor Guidance document available on the City & Guilds web site www.nptc.org.uk

The assessor must complete the Practical Table mark sheet for each candidate which should be kept by the assessor for a minimum period of twelve months.

Record of assessment (ROA)

A prepopulated record of assessment must be completed by the assessor following an assessment. The number of outcomes is listed above, these must be ticked into the relevant met or not met sections of the ROA.

ARAS Forms

An Assessment Result Advice Slip (ARAS form) must be completed by the assessor following an assessment. The ARAS is not a certificate but, based on the evidence of the candidate's performance, is a recommendation to City & Guilds that the candidate is either met or not met the assessment criteria. All feedback is to be recorded by the assessor on the feedback section of the ARAS form.

Assessment Time

The expected assessment time for this qualification is 2 – 4 hours.

Site/workshop requirements:

Site with sufficient space and available trees to meet the assessment criteria

Tree diameter at felling height over 380mm (minimum 1 tree minimum diameter 560mm per candidate)

Equipment/Machinery:

Chainsaw (maximum guide bar 15 inch) with maintenance tools

Relevant chainsaw operator's manual

Felling and lifting aids eg felling lever, felling wedge, timber tongs/hook, turning strap

Measuring aid

Winching equipment minimum 1.6 ton capacity

First aid kit

Consumables:

Fuel and chainsaw oil

This is not an open book assessment, however additional technical information may be sought from the relevant manufacturer's operator manuals or any other appropriate training or safety publication.

Practical observation descriptor table

304 - Felling and processing medium trees over 380mm and up to 760mm

Activity number and description from check list		Assessment criteria
1.	Identify the hazards, risks and controls associated with the site, task and machine	Identify hazards, risks and controls relevant to the site task and machine
2.	State the emergency procedures relevant to the site	Emergency procedures relevant to the work site
3.	State industry guides and information relevant to felling and processing trees over 380mm	industry guides relevant to windblown trees: <ul style="list-style-type: none"> • Forest Industry Safety Accord (FISA) • Forestry commission winching technical guide operations in forestry
4.	State the appropriate safe working distances from other operators during felling operations	Safe working distances: <ul style="list-style-type: none"> • Two tree lengths
5.	Explain felling methods for dealing with double stems, hanging branches, long limbs, cavities, standing stems and backward weighted trees	Felling methods may be modified by: Double stems: <ul style="list-style-type: none"> • stems felled individually • assisted/mechanical felling • other Hanging branches: <ul style="list-style-type: none"> • attempt made to remove the hanging branch • no felling activities directly beneath hanging limb section • assisted/mechanical felling • other Long limbs: <ul style="list-style-type: none"> • limb removal • assisted/mechanical felling • other Cavities: <ul style="list-style-type: none"> • fell above or below the cavity • assisted/mechanical felling • other Backward weighted trees: <ul style="list-style-type: none"> • wedges • assisted/mechanical felling • other Standing stems: <ul style="list-style-type: none"> • adjusted hinge dimensions • assisted/mechanical felling • other

6.	Carry out pre-start checks and setting of the chainsaw	<p>Pre-start checks and setting of the machine to include:</p> <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
7.	Demonstrate safe starting of the chainsaw	Chainsaw is checked started and function tested ready for use in accordance with manufacturer's information
8.	Prepare site and establish escape routes as appropriate	<p>Prepare site and escape routes by:</p> <ul style="list-style-type: none"> • ensuring the control measures identified in site specific risk assessment are applied • determining the felling direction in relation to method of extraction or conversion • setting up a felling bench if required • removing debris from around the base of the trees to be felled and compact vegetation to facilitate felling at appropriate height • removing dead or suppressed trees and any other vegetation adjacent to the tree, in the felling direction or escape routes that may be a danger • inspecting the felling area including adjacent trees for dead wood and insecure branches • ensuring no unauthorised person is within two tree lengths
9.	Prepare trees appropriately to the tree condition and the specification for the site	<p>Preparing trees for felling may include:</p> <ul style="list-style-type: none"> • brashing lower branches • correct break-in • position of the saw in relation to the operator, bar/ chain not in alignment with operator's body • height to which branches are removed • saw body not above shoulder height • operating technique • brashing close to the stem • removing climbing vegetation • removing buttresses and other obstructions as appropriate • inspecting the tree for signs of rot or decay

10.	Explain the factors to consider and additional safety precautions when using winches	<p>Factors and precautions to consider should include:</p> <ul style="list-style-type: none"> • capacity of the winch • communication method between operators • security of anchor points • compatibility of components/strength loss of equipment in certain configurations • serviceability and inspection of all components • PPE required for winching operations • competency of operators • roles and responsibilities understood by all parties • danger zones including during off-set winching • safe working distances • other
11.	Select and inspect winch and ancillary equipment and comment on condition and compatibility	<p>Select and inspect work equipment:</p> <ul style="list-style-type: none"> • check for signs of damage or fatigue to equipment • ensure winch, stops, chokers, winch rope, cable fittings, shackles, other ancillary equipment are compatible • winch overload prevention device in place • winch components secure
12.	Fell trees using recognised felling methods and felling aids	<p>Felling techniques should account for:</p> <ul style="list-style-type: none"> • the felling method chosen and safe working zones • selection and preparation of escape routes • assisted felling techniques used if applicable • a sink of the appropriate dimensions • felling cuts made and felling aid employed using a safe and effective felling method • a hinge being retained of adequate dimensions • appropriate aid tools are used safely if required to fell tree • escape routes being used as soon as the tree begins to fall • site checked for safety once tree has fallen • stump height left appropriate to site specification

13.	Describe take down methods for trees using winches or other manual or mechanical means	<p>Following hinge reduction/removal takedown methods may also include the use of:</p> <p>manual means:</p> <ul style="list-style-type: none"> • long felling lever used to roll the tree • turning strap and pole used to roll the tree • other <p>winches to assist with:</p> <ul style="list-style-type: none"> • pulling/dragging • rolling/turning • other <p>mechanical assistance:</p> <ul style="list-style-type: none"> • forwarder/harvester • skidder • other
14.	Select take down method which is relevant to the hung-up tree size, form and condition	<p>Take down methods may include:</p> <ul style="list-style-type: none"> • hinge reduction - roll out • hinge removal – drag back • other
15.	Explain where the danger areas are in relation to the trees being taken down	<p>Danger areas in relation to hung up trees include:</p> <ul style="list-style-type: none"> • directly under a hung-up tree • directly behind a hung-up tree • recognised danger areas involved with winching

<p style="text-align: center;">16.</p>	<p>Take down hung up tree using a winch</p>	<p>The take down of hung up trees using an appropriate winch should include:</p> <ul style="list-style-type: none"> • assessing the position of tree and checking the condition of the hinge • removal of debris and obstacles from take down route • deciding on the final felling direction • preparing new escape routes as appropriate • selecting and positioning aid tools as required • ensuring no unauthorised persons are within two tree lengths or directly below on steep slopes • correct operator stance and safe position • appropriate position and angle of cuts using a cutting technique for the removal of an appropriate part of the hinge • safe withdrawal of the saw • leaving approximately 10% -20% of hinge to support the tree on each/either side appropriate to take down method utilised • supporting remnants of hinge is taken off with small angled cuts from side of tree • safe placement of the saw on completion of cuts <p>Winch is setup taking into consideration:</p> <ul style="list-style-type: none"> • appropriate PPE used • position and anchorage of winch • danger zones and safe working distances • offset system used with e.g. a snatch block on steep slopes or around obstacles when appropriate • position of winch operator • position of the strop on the butt • attachment of winch cable to strop • communication with winch operator is clearly established (if applicable) <p>Winch is operated during which the following is taken into account:</p> <ul style="list-style-type: none"> • winch operator remains under direct control of chainsaw operator where applicable • winch operator observant of tree movements • repositioning of the strop at the butt or repositioning of the anchor as appropriate • use of escape routes if applicable • tree is winched until in a stable condition to be processed • winch handle released or controlled as tree falls if applicable • upon completion strops are removed, checked and stowed and the winch rope rewound correctly
---	---	--

17.	Describe process for removing branches above shoulder height	Removal of branches above shoulder height may include: <ul style="list-style-type: none"> • felling/removal of branch to bring it to a lower working height • rolling of the stem to allow for a safer working height
18.	State how and when to use equipment to assist with the branch removal of trees	Equipment used to assist may include: <ul style="list-style-type: none"> • winch used to restrain timber if it could roll towards operator • felling aid used to turn stem to aid subsequent branch removal
19.	State the implications on choice of branch severing method	The implications from choice of branch severing method may include: <ul style="list-style-type: none"> • the saw may become trapped • timber may break or split • timber may move suddenly or unexpectedly • other
20.	Explain the advantages of leaving a clean stem after branch removal	Advantages of a clean stem may include: <ul style="list-style-type: none"> • reducing possible injury to the person moving the timber • reduce friction/collecting debris when pulling timber along the ground • prevent damage to other trees when extracting timber • allowing timber to easily enter machines • easier stacking or loading • other

<p>21.</p>	<p>Remove branches from felled trees using a recognised method</p>	<p>Branch removal techniques should account for:</p> <ul style="list-style-type: none"> • a systematic sequence of cuts and position of the saw to remove branches as appropriate for the branching habit • correct stance and support of the saw on tree or right leg • left thumb around the front handle • neither handle released while the chain is moving • appropriate use of the chain brake • avoid working on lower side of unsecured tree on slopes • operator's not cutting towards legs or body • avoiding the use of the tip of guidebar • avoiding overreaching with chainsaw • not straddling the stem • compression and tension forces assessed and appropriate cuts used • using an under-sweep technique if applicable • winch used to restrain timber if it could roll towards the operator if applicable • top cut at an appropriate diameter and removed with a safe method of cutting • the stem turned using appropriate aid tools/ techniques • using the stem for protection when removing remaining branches as appropriate • all branches being removed flush with the stem
------------	--	--

22.	Cross-cut timber in accordance with the specification	<p>Crosscutting of timber to length should include:</p> <ul style="list-style-type: none"> • ensuring appropriate safe working distances from both fuel and other operators is maintained • correct use of PPE • timber is in a safe and appropriate position • safe starting procedure adopted • Safe stance adopted including: <ul style="list-style-type: none"> • legs and feet are clear of the chain • chainsaw is stable/secure/supported during crosscutting • minimal risk of muscular/skeletal injury • bar aligned to maintain accuracy • head out of line of chain • use of throttle to cut safely and efficiently • cutting techniques employed to complete severance of timber • appropriate boring technique used if applicable • sequence of cuts undertaken to prevent saw becoming trapped • reduction cuts made as appropriate in relation to diameter of timber • appropriate aids used for lifting, rolling or levering if applicable • accuracy of measurement within site specification and reasonable tolerances • tension and compression cuts should meet • chain brake used appropriately • saw switched off and left in safe position, bar cover replaced if appropriate
23.	Check timber is in an appropriate and safe position	Timber should be left in a safe, stable condition and appropriate position
24.	Dispose of waste safely in line with legislation	All waste produced is disposed of in line with legislation, good practice and site requirements
25.	Used appropriate tools, equipment and personal protective equipment (PPE)	All tools, equipment and personal protective equipment is used in line with industry good practice
26.	Carried out work to minimise environmental damage	It is ensured that any possible environmental damage is minimised at all times
27.	Worked in a way which maintains health and safety and is consistent with relevant legislation and industry good practice	All activities must be completed in a way which protects the operator and those around them

Appendix 1 Practical Table

304- Felling and processing medium trees over 380mm and up to 760mm

All criteria must be achieved.

Activity number and description	Achieved
1. Identify the hazards, risks and controls associated with the site, task and machine	
2. State the emergency procedures relevant to the site	
3. State industry guides and information relevant to felling and processing trees over 380mm	
4. State the appropriate safe working distances from other operators during felling operations	
5. Explain felling methods for dealing with double stems, hanging branches, long limbs, cavities, standing stems and backward weighted trees	
6. Carry out pre-start checks and setting of the chainsaw	
7. Demonstrate safe starting of the chainsaw	
8. Prepare site and establish escape routes as appropriate	
9. Prepare trees appropriately to the tree condition and the specification for the site	
10. Explain the factors to consider and additional safety precautions when using winches	
11. Select and inspect winch and ancillary equipment and comment on condition and compatibility	
12. Fell trees using recognised felling methods and felling aids	
13. Describe take down methods for trees using winches or other manual or mechanical means	
14. Select take down method which is relevant to the hung-up tree size, form and condition	
15. Explain where the danger areas are in relation to the trees being taken down	
16. Take down hung up tree using a winch	
17. Describe process for removing branches above shoulder height	
18. State how and when to use equipment to assist with the branch removal of trees	
19. State the implications on choice of branch severing method	
20. Explain the advantages of leaving a clean stem after branch removal	
21. Remove branches from felled trees using a recognised method	
22. Cross-cut timber in accordance with the specification	
23. Check timber is in an appropriate and safe position	
24. Dispose of waste safely in line with legislation	
25. Used appropriate tools, equipment and personal protective equipment (PPE)	
26. Carried out work to minimise environmental damage	
27. Worked in a way which maintains health and safety and is consistent with relevant legislation and industry good practice	

Appendix 2 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. To download the documents and to find other useful documents, go to the **Centre Document Library** on www.cityandguilds.com or click on the links below:

Quality Assurance Standards: Centre Handbook

This document is for all approved centres and provides guidance to support their delivery of our qualifications. It includes information on

- Centre quality assurance criteria and monitoring activities
- Administration and assessment systems
- Centre-facing support teams at City & Guilds / ILM
- Centre quality assurance roles and responsibilities.

The Centre Handbook should be used to ensure compliance with the terms and conditions of the Centre Contract.

Quality Assurance Standards: Centre Assessment

This document sets out the minimum common quality assurance requirements for our regulated and non-regulated qualifications that feature centre assessed components. Specific guidance will also be included in relevant qualification handbooks and/or assessment documentation.

It incorporates our expectations for centre internal quality assurance and the external quality assurance methods we use to ensure that assessment standards are met and upheld. It also details the range of sanctions that may be put in place when centres do not comply with our requirements, or actions that will be taken to align centre marking/assessment to required standards. Additionally, it provides detailed guidance on the secure and valid administration of centre-assessments.

Access arrangements - When and how applications need to be made to City & Guilds

provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The **Centre Document Library** also contains useful information on such things as:

- Conducting examinations
- Registering learners
- Appeals and malpractice

Useful contacts

Please visit the Contact Us section of the City & Guilds website, **Contact us**

About City & Guilds

As the UK's leading vocational education organisation, City & Guilds is leading the talent revolution by inspiring people to unlock their potential and develop their skills. We offer over 500 qualifications across 28 industries through 8500 centres worldwide and award around two million certificates every year. City & Guilds is recognised and respected by employers across the world as a sign of quality and exceptional training.

City & Guilds Group

The City & Guilds Group is a leader in global skills development. Our purpose is to help people, organisations and economies develop their skills for growth. We work with education providers, employers and governments in over 100 countries across the world to help people, businesses and economies grow by shaping skills systems and supporting skills development.

The Group is made up of City & Guilds, ILM, Kineo, The Oxford Group, Gen2, and Intertrain. Together we set the standard for professional and technical education and corporate learning and development around the world.

Copyright

The content of this document is, unless otherwise indicated, © The City & Guilds of London Institute and may not be copied, reproduced or distributed without prior written consent. However, approved City & Guilds centres and learners studying for City & Guilds qualifications may photocopy this document free of charge and/or include a PDF version of it on centre intranets on the following conditions:

- centre staff may copy the material only for the purpose of teaching learners working towards a City & Guilds qualification, or for internal administration purposes
- learners may copy the material only for their own use when working towards a City & Guilds qualification

The Standard Copying Conditions (see the City & Guilds website) also apply.

Published by City & Guilds, a registered charity established to promote education and training

City & Guilds of London Institute
Giltspur House
5-6 Giltspur Street
London
EC1A 9DE

cityandguildsgroup.com
