



# **City & Guilds Level 3 Certificate of Competence in Thorough Examination of Arboricultural Equipment (0037-03)**

December 2021 Version 1.0

**Qualification Handbook**

## Qualification at a glance

<b>Industry area</b>	Forestry and Arboriculture
<b>City &amp; Guilds number</b>	0037-03
<b>Age group</b>	16-19, 19+
<b>Entry requirements</b>	n/a Centres must ensure that any pre-requisites stated in the <i>What is this qualification about?</i> section are met.
<b>Assessment</b>	To gain this qualification, candidates must successfully achieve the following assessments: <ul style="list-style-type: none"> <li>One to one practical assessment with oral questioning by an NPTC City &amp; Guilds approved assessor</li> </ul>
<b>Grading</b>	Pass only
<b>Approvals</b>	Full centre approval Qualification approval
<b>Support materials</b>	n/a
<b>Registration and certification</b>	Registration and certification of this qualification is through the Walled Garden and is subject to end dates.

Title and level	Size (GLH)	TQT	City & Guilds qualification number	Ofqual accreditation number
City & Guilds Level 3 Certificate of Competence in Thorough Examination of Arboricultural Equipment	24	28	0037-03	603/7883/9

Version and date	Change detail	Section
1.0	First version	

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# 1 Introduction

## Purpose of this qualification?

The following purpose is for the **City & Guilds Level 3 Certificate of Competence in Thorough Examination of Arboricultural Equipment (603/7883/9)**

Area	Description
OVERVIEW	
Who is this qualification for?	Individuals who operate around utility services as part of their work in arboriculture, forestry, or other industries. It will provide the individual with the knowledge, understanding and skills required to examine arboricultural equipment in line with legislative requirements.
What does this qualification cover?	It covers legislation, regulations, and guidance documents, lifting operation and equipment, Category 3 Personal Protective Equipment (PPE), arboricultural lifting equipment terms and standards, evidence conformity, individual competency, checks, inspection, and examination of arboricultural equipment, personal fall protection systems, arboricultural lifting equipment types, characteristics, configurations and storage, damage, and defects, records, information, equipment markings, completing a thorough examination of arboricultural equipment.
WHAT COULD THIS QUALIFICATION LEAD TO?	
Will the qualification lead to employment, and if so, in which job role and at what level?	This qualification will support progression into employment, where working within the arboricultural industry is part of the role. Safe operational skills are key to efficient use, good working practice and preventing accidents, leading to business benefits in terms of less machinery damage and down time.
Why choose this qualification over similar qualifications?	This is a specialist qualification demonstrating the individual can safely carry out duties associated with working in the arboricultural industry to a recognised level of competency.
Will the qualification lead to further learning?	Individuals who successfully complete this qualification could go on to increase their level of proficiency through consolidation practice within a working environment or develop other skills within the Arboriculture suite of qualifications.
WHO SUPPORTS THIS QUALIFICATION?	

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Employer/Higher Education Institutions	The Arboricultural Association
FURTHER INFORMATION	Please refer to the City & Guilds NPTC website, for more information on the assessment.

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## Qualification structure

For the **City & Guilds Level 3 Certificate of Competence in Thorough Examination of Arboricultural Equipment (0037-03)** learners must be trained and assessed in the unit listed below.

Unit number	Unit title	GLH
<b>Learners must achieve</b>		
301	Thorough examination of arboricultural equipment	24

## 2 Centre requirements

### Approval

New centres will need to gain centre approval. Existing City & Guilds centres who do not currently offer this qualification must go through the Qualification Approval (QAP) process. For centres currently offering City & Guilds Level 3 Certificate of Competence in the Thorough Examination of Arboricultural Equipment (XARB) there is a Fast Track method of approval. Please email [qasupport@cityandguilds.com](mailto:qasupport@cityandguilds.com) for further information on the approval process

### Centre staffing

Staff delivering these qualifications must be able to demonstrate that they meet the following requirements:

- be technically competent in the areas in which they are delivering
- be able to deliver across the breadth and depth of the content of the qualification being taught
- have recent relevant teaching and assessment experience in the specific area they will be teaching, or be working towards this
- demonstrate continuing CPD.

### Physical resources

Centres must be able to demonstrate that they have access to the equipment and technical resources required to deliver this qualification and its assessments.

### Assessment Guidance for the Assessor

Staff assessing these qualifications must be approved Certificate of Competence City & Guilds NPTC Assessors and must be independent **and cannot have been involved with the training of the Candidate**. This qualification can only be assessed by an Assessor who is suitably qualified and meets the requirements of the awarding body.

Certificate of Competence City & Guilds NPTC Assessors must meet the following requirements:

- show competence and provide evidence of industry expertise in the qualification/s they wish to assess
- hold the qualification as a candidate and have been technically evaluated as an Assessor
- be up to date with their verification and relevant first aid
- demonstrate continuing technically relevant CPD

Compliance with these requirements is a pre-requisite for Assessors remaining on the list of approved Assessors.

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 City & Guilds 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 and approved Assessors will be subject to a regular 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 a City & Guilds approved Quality Consultant.

### **Safe Practice**

Appropriate PPE must be worn at all times

All equipment must be operated in such a way that the Candidate, Assessor, other persons, animals or other equipment are not endangered.

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

### **Validation of Equipment**

Any item(s) equipment used for the assessment must comply with current legal requirements.

Additional information may be sought from the relevant manufacturer's instruction book, operators' manual, product label/database or any other Government/Government Agency publication.

### **Age restrictions**

This qualification is approved for learners aged 16 – 19, 19+.

### 3 Administration

Approved centres must have effective quality assurance systems to ensure valid and reliable delivery and assessment of qualifications. Quality assurance includes initial centre registration by City & Guilds and the centre's own internal procedures for monitoring quality assurance procedures.

Consistent quality assurance requires City & Guilds and its associated centres to work together closely; our Quality Assurance Model encompasses both internal quality assurance (activities and processes undertaken within centres) and external quality assurance (activities and processes undertaken by City & Guilds).

#### External quality assurance

City & Guilds will undertake external moderation activities to ensure that the quality assurance criteria for this qualification are being met. Centres must ensure that they co-operate with City & Guilds staff and representatives when undertaking these activities.

City & Guilds requires the Head of Centre to

- facilitate any inspection of the centre which is undertaken on behalf of City & Guilds
- make secure arrangements to receive, check and keep assessment material secure at all times, maintain the security of City & Guilds confidential material from receipt to the time when it is no longer confidential and keep completed assignment work and examination scripts secure from the time they are collected from the candidates to their dispatch to City & Guilds.

#### Malpractice

Please refer to the City & Guilds guidance notes *Managing cases of suspected malpractice in examinations and assessments*. This document sets out the procedures to be followed in identifying and reporting malpractice by candidates and/or centre staff and the actions which City & Guilds may subsequently take. The document includes examples of candidate and centre malpractice and explains the responsibilities of centre staff to report actual or suspected malpractice. Centres can access this document on the City & Guilds website.

Examples of candidate malpractice are detailed below (please note that this is not an exhaustive list):

- falsification of assessment evidence or results documentation
- plagiarism of any nature
- collusion with others
- copying from another candidate (including the use of ICT to aid copying), or allowing work to be copied
- deliberate destruction of another's work
- false declaration of authenticity in relation to assessments
- impersonation.

These actions constitute malpractice, for which a penalty (eg disqualification from the assessment) will be applied.

Where suspected malpractice is identified by a centre after the candidate has signed the declaration of authentication, the Head of Centre must submit full details of the case to City & Guilds at the earliest opportunity. Please refer to the form in the document *Managing cases of suspected malpractice in examinations and assessments*. Alternatively please complete the form, JCQ/M1. Copies of this form can be found on the JCQ website: <http://www.jcq.org.uk>

### **Access arrangements and special consideration**

We have taken note of the provisions of equalities legislation in developing and administering this specification.

We can make arrangements so that candidates with disabilities, special educational needs and temporary injuries can access the assessment. These arrangements must be made before assessment takes place.

It is the responsibility of the centre to ensure at the start of a programme of learning that candidates will be able to access the requirements of the qualification.

Please refer to the *JCQ access arrangements and reasonable adjustments and Access arrangements - when and how applications need to be made to City & Guilds* for more information. Both are available on the City & Guilds website: <http://www.cityandguilds.com/delivering-our-qualifications/centre-development/centre-document-library/policies-and-procedures/access-arrangements-reasonable-adjustments>

### **Special consideration**

We can give special consideration to candidates who have had a temporary illness, injury or indisposition at the time of the examination. Where we do this, it is given after the examination.

Applications for either access arrangements or special consideration should be submitted to City & Guilds by the Examinations Officer at the centre. For more information please consult the current version of the JCQ document, *A guide to the special consideration process*.

### **Language of examinations**

City & Guilds has a responsibility to ensure that candidates can be assessed in the following languages only:

- English
- English in Northern Ireland
- English in Wales.



## Unit 301

## Thorough examination of arboricultural equipment

<b>Level:</b>	3
<b>GLH</b>	24

### What is this unit about?

The aim of this unit is to provide the learner with the knowledge, understanding and skills required to examine arboricultural equipment in line with legislative requirements.

### Learning outcomes

In this unit, learners will be able to

1. Carry out thorough examination of arboricultural equipment

## Scope of content

This section gives details of the scope of content to be covered in the teaching of the unit to ensure that all the learning outcomes can be achieved.

### Learning outcome:

#### 1. Carry out thorough examination of arboricultural equipment

### Topics:

- 1.1 Legislation, regulations and guidance documents
- 1.2 Lifting operation and equipment
- 1.3 Category 3 Personal Protective Equipment (PPE)
- 1.4 Arboricultural lifting equipment terms and standards
- 1.5 Evidence conformity
- 1.6 Individual competency
- 1.7 Checks, inspection and examination of arboricultural equipment
- 1.8 Personal fall protection systems
- 1.9 Arboricultural lifting equipment types, characteristics, configurations and storage
- 1.10 Damage and defects
- 1.11 Records, information, equipment markings
- 1.12 Completing a thorough examination of arboricultural equipment

#### Topic 1.1

##### Lifting Operations and Lifting Equipment Regulations (LOLER):

- LOLER is aimed at ensuring all lifting operations are properly planned, lifting equipment is used in a safe manner and lifting equipment is thoroughly examined at suitable intervals by a competent person.

##### Management of Health and Safety at Work Regulations (MHSWR):

- MHSWR require a risk assessment to be carried out to identify the nature and level of the risks associated with a lifting operation.

##### Provision and Use of Work Equipment Regulations (PUWER):

- PUWER applies to all work equipment including lifting equipment. Duty holders are required to select suitable work equipment.

##### Personal Protective Equipment at Work Regulations (PPE):

- PPE at Work Regulations require that personal protective equipment is to be supplied and used at work wherever there are risks to health and safety that cannot be adequately controlled in other ways.

##### Work at Height Regulations

- WAHR apply to all work at height where there is a risk of a fall which is likely to cause personal injury. Employers and those in control of any work at height activity must make sure work is properly planned, supervised and carried out by competent people.

##### Machinery Directive:

- Equipment within the scope of the directive must have been subject to appropriate conformity assessment, labelled and accompanied by a declaration of conformity.
- Approved Code of Practice (ACOP)
- Gives practical advice on how to comply with the law. By following the advice you will be doing enough to comply with the law in respect of those specific matters on which the Code gives advice Industry Code of Practice (ICOP)
- Document providing recommendations and guidance pertaining to the planning, management and undertaking of tasks and operations within a specific industry good practice
- Technical or industry good practice guidance that relates to specific arboricultural operations, such as climbing and rigging

The Regulations require that lifting equipment provided for use at work is:

- a. Strong and stable enough for the particular use
- b. Marked to indicate safe working loads
- c. Positioned and installed to minimise any risks
- d. Used safely, i.e., the work is planned, organised and performed by competent people
- e. Subject to ongoing thorough examination and, where appropriate, inspection by competent people

### Topic 1.2

Definition of 'lifting operation':

- An operation concerned with the lifting, lowering or suspending of a load. A 'load' may include a person

Definition of 'lifting equipment':

- Lifting equipment means work equipment for lifting or lowering loads and includes its attachments used for anchoring, fixing or supporting it

### Topic 1.3

Category 3 PPE is intended to protect users from the risks of falling from height.

### Topic 1.4

Terms in relation to arboricultural lifting equipment:

- Minimum Breaking Strength (MBS): the load above which an item of equipment might fail when it is new, as determined by the manufacturer
- Working Load Limit (WLL): the load that an item of equipment – when new – can safely lift, lower, raise or suspend as specified by a manufacturer. This does not account for particular service conditions
- Safety Factor (SF): the relationship between the MBS and the WLL/SWL, often expressed as a ratio
- Safe Working Load (SWL): the load that an item of equipment can safely lift, lower, raise or suspend based on particular working conditions as specified by a competent person. The safe working load may be lower than the working load limit
- UKCA: United Kingdom Conformity Assessed
- EN: European Norm
- ISO: International Organisation for Standardisation
- N: Newton: A unit of force
- daN: Decanewton (10 Newtons) - approximately 1kg
- kN: Kilonewton (1000 Newtons) - approximately 100kg

Types of standards relevant to arboricultural lifting equipment:

- UK Designated Standards are the standards that can be used to demonstrate that products, comply with legal requirements
- European Norms set out performance and testing criteria for a defined product type

#### **Topic 1.5**

Evidence of conformity is a verifiable link between the product and a stated standard or directive.

#### **Topic 1.6**

A competent person shall have:

- The appropriate practical, theoretical knowledge and experience of the lifting equipment
- The ability to detect defects or weaknesses and assess the importance
- The ability to be sufficiently independent and impartial

#### **Topic 1.7**

Different types of checks, inspection or examination of arboricultural lifting equipment include:

- Pre-use check
- Interim recorded inspection for items subject to high levels of wear and tear
- Thorough examination

The thorough examination should take place:

- At least every 6 months for equipment used for lifting people or an accessory for lifting
- At least every 12 months for other lifting equipment
- In accordance with an examination scheme
- Following the occurrence of exceptional circumstances

Exceptional circumstances following which a 'Thorough Examination' would be required include:

- Involvement in an accident or dangerous occurrence
- After a significant change in conditions of use
- Long periods out of service
- Modification or repair
- Excessive shock loading and/or impact
- Contamination

#### **Topic 1.8**

A 'personal fall' protection system is an assembly of components which, when used correctly, combine to prevent a fall, limit the potential for a fall or minimise the distance and consequences of a fall. Generally, it includes a body holding device (harness) connected to a reliable anchor.

Types of arboricultural 'personal fall protection systems':

- Moving Rope Technique (MRT)
- Stationary Rope Technique (SRT)

#### **Topic 1.9**

Different karabiner shapes and their key characteristics to include:

- Oval – allows central positioning of devices/alignment of systems and components



- D Shape – asymmetric shape, transfers the majority of the load close and parallel to the spine, the strongest axis
- Off-set D – variant of a D shaped carabiner with greater asymmetry allowing for a wider gate opening and alignment of load along the spine
- Pear/HMS – oversized offset D shaped carabiner providing increased internal volume and gate clearance

Strength ratings of specific sling types (EN1492) to include:

- Basket hitch (angle between the legs 0°) increase lift capacity WLL x 2
- Basket hitch (angle between the legs 90°) increase lift capacity WLL x 1.4
- Choker reduces lift capacity WLL x 0.8

Arboricultural lifting equipment that requires thorough examination includes:

- Harnesses
- Ropes
- Connectors
- Pulleys
- Slings
- Lowering devices
- Ascenders/descenders
- Lanyards
- Friction savers
- Friction cord
- Chainsaw lanyards

The benefits of equipment traceability include:

- Provides a link between product and manufacturer
- Provides proof of ownership
- Helps determine where and when an item was purchased
- Demonstrates when equipment was issued
- Provides evidence of who equipment was issued to

To ensure traceability of equipment, the following information may be obtained, stored or recorded for arboricultural lifting equipment:

- Manufacturer's instructions
- Date of purchase and supplier
- Evidence of conformity
- Dates of entry to service
- Written documentation of interim inspections
- Thorough examination records

### **Topic 1.10**

Different types of damage and defects that can affect metal items of equipment may include:

- Corrosion (chemical damage)
- Loss of material cross section
- Abrasion
- Cracks
- Burrs
- Incorrect function of moving parts
- Deformation

Different types of damage and defects that can affect textile items of equipment may include:

- Cuts
- Abrasion
- Heat damage (burns/melting)
- Age
- Overloading
- Chemicals
- Deformation

### **Topic 1.11**

Records that should be retained for arboricultural lifting equipment include:

- Purchase information including date and supplier
- Manufacturer's instructions
- Evidence of conformity
- Interim inspection records
- Record of thorough examination

Information relating to the competent person to be contained within a "Thorough Examination" report should include:

- Name
- Address
- Qualifications
- Employment status (employed/self employed). If employed, state address of employer

Dates to be contained within a 'Thorough Examination' report should include:

- Date of previous thorough examination
- Date of current thorough examination
- Latest date by which the next thorough examination must be carried out
- Date of completion of the report
- Equipment manufactures dates

It may be permissible to mark or remark equipment with the approval of the manufacturer.

### **Topic 1.12**

A Thorough Examination of arboricultural equipment to include:

- Identify the item to be thoroughly examined and inspection method suitable to type
- Thoroughly examine item for any indication of damage and/or wear
- Try to expose hidden areas where appropriate
- Pay particular attention to any attachment or connection points
- Check moving parts for function and freedom of movement
- Look for distortion, stiffness or residues
- Check for smell or discoloration that may indicate contamination
- Evaluate whether damage identified is within acceptable limits
- Where available make reference to manufactures instructions or technical data
- Decision made as to whether item is safe or not safe for use

A written report of the 'Thorough Examination' containing:

- Description of equipment

- Unique identifier
- Date of manufacture (where known)
- Minimum breaking strength
- Safe working load
- Record details of all parts that have or may result in a defect or details of remedial action required
- Provide information relating to justification of a decision made and any calculations that have been used
- A statement of whether the item is safe for use or not

All waste produced is disposed of in line with legislation, good practice and site requirements.

All tools, equipment and personal protective equipment is used in line with industry good practice  
It is ensured that any possible environmental damage is minimised at all times.

## Appendix 1 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the **Centres and Training Providers homepage** on **www.cityandguilds.com**.

### City & Guilds Centre Manual

This document provides guidance for organisations wishing to become City & Guilds approved centres, as well as information for approved centres delivering City & Guilds qualifications. It covers the centre and qualification approval process as well as providing guidance on delivery, assessment and quality assurance for approved centres.

It also details the City & Guilds requirements for ongoing centre and qualification approval, and provides examples of best practice for centres. Specifically, the document includes sections on:

- the centre and qualification approval process
- assessment, internal quality assurance and examination roles at the centre
- registration and certification of candidates
- non-compliance and malpractice
- complaints and appeals
- equal opportunities
- data protection
- management systems
- maintaining records
- internal quality assurance
- external quality assurance.

### Our Quality Assurance Requirements

This document explains the requirements for the delivery, assessment and awarding of our qualifications. All centres working with City & Guilds must adopt and implement these requirements across all of their qualification provision. Specifically, this document:

- specifies the quality assurance and control requirements that apply to all centres
- sets out the basis for securing high standards, for all our qualifications and/or assessments
- details the impact on centres of non-compliance

Our Quality Assurance Requirements document encompasses the relevant regulatory requirements of the following documents, which apply to all UK centres working with City & Guilds:

- Ofqual's General Conditions of Recognition

The **centre homepage** section of the City & Guilds website also contains useful information on

- **Walled Garden:** how to register and certificate candidates on line
- **Events:** dates and information on the latest Centre events
- **Online assessment:** how to register for e-assessments.

## Useful contacts

<b>UK learners</b> General qualification information	<b>E: <a href="mailto:learnersupport@cityandguilds.com">learnersupport@cityandguilds.com</a></b>
<b>International learners</b> General qualification information	<b>E: <a href="mailto:intcg@cityandguilds.com">intcg@cityandguilds.com</a></b>
<b>Centres</b> Exam entries, Certificates, Registrations/enrolment, Invoices, Missing or late exam materials, Nominal roll reports, Results	<b>E: <a href="mailto:information@cityandguilds.com">information@cityandguilds.com</a></b>
<b>Single subject qualifications</b> Exam entries, Results, Certification, Missing or late exam materials, Incorrect exam papers, Forms request (BB, results entry), Exam date and time change	<b>E: <a href="mailto:singlesubjects@cityandguilds.com">singlesubjects@cityandguilds.com</a></b>
<b>International awards</b> Results, Entries, Enrolments, Invoices, Missing or late exam materials, Nominal roll reports	<b>E: <a href="mailto:intops@cityandguilds.com">intops@cityandguilds.com</a></b>
<b>Walled Garden</b> Re-issue of password or username, Technical problems, Entries, Results, e-assessment, Navigation, User/menu option, Problems	<b>E: <a href="mailto:walledgarden@cityandguilds.com">walledgarden@cityandguilds.com</a></b>
<b>Employer</b> Employer solutions, Mapping, Accreditation, Development Skills, Consultancy	<b>T: +44 (0)121 503 8993</b> <b>E: <a href="mailto:business@cityandguilds.com">business@cityandguilds.com</a></b>

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## 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. 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 operates from three major hubs: London (servicing Europe, the Caribbean and Americas), Johannesburg (servicing Africa), and Singapore (servicing Asia, Australia and New Zealand). The Group also includes the Institute of Leadership & Management (management and leadership qualifications), City & Guilds Licence to Practice (land-based qualifications) and Learning Assistant (an online e-portfolio).

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## City & Guilds

Giltspur House

5 -6 Giltspur Street

London EC1A 9DE

[www.cityandguilds.com](http://www.cityandguilds.com)