



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

December 2021 Version 1.0

**Assessment Pack – Centre and Candidate
Version**

| Version and date | Change detail | Section |
|------------------|---------------|---------|
| 1.0 | First version | |

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Introduction

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

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 has 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 3.5- 4 hours.

Site/workshop requirements:

- a. Well lit, comfortable classroom or workshop based environment to conduct written examination papers
- b. Adequate worktop space for items of arboricultural equipment to be presented, allowing space for movement of candidates
- c. Wipe board, flipchart or similar for the recording of assessment information
- d. A clock visible to all candidates
- e. Suitable welfare arrangements including toilet and hand washing facilities

Equipment/Machinery:

The assessor will supply ten items of arboricultural equipment (PPE and rigging) that require thorough examination for the candidate to inspect and comment upon. It is expected that the equipment will consist of a range of conditions that may require remedial action, taking out of service or deemed safe for use.

With each item a briefing card will be issued that describes where known the following data:

- a. Date of purchase
- b. Date of first use
- c. Supplier name
- d. Application (PPE or Rigging)

Each briefing card will also include where relevant end user comments relating to the use of the item. Only user instructions/manufacturers data supplied by the assessor can be used during assessment.

Practical observation descriptor table

Unit 301 Thorough examination of arboricultural equipment

| Activity number and description from check list | | Assessment criteria |
|---|--|---|
| 1. | Demonstrate knowledge of secondary legislation or regulations relating to arboricultural lifting equipment | <p>Lifting Operations and Lifting Equipment Regulations (LOLER)</p> <ul style="list-style-type: none"> 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. <p>Management of Health and Safety at Work Regulations (MHSWR)</p> <ul style="list-style-type: none"> MHSWR require a risk assessment to be carried out to identify the nature and level of the risks associated with a lifting operation. <p>Provision and Use of Work Equipment Regulations (PUWER)</p> <ul style="list-style-type: none"> PUWER applies to all work equipment including lifting equipment. Duty holders are required to select suitable work equipment. <p>Personal Protective Equipment at Work Regulations (PPE)</p> <ul style="list-style-type: none"> 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. <p>Work at Height Regulations</p> <ul style="list-style-type: none"> 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. <p>Machinery Directive</p> <ul style="list-style-type: none"> equipment within the scope of the directive must have been subject to appropriate conformity assessment, labelled and accompanied by a declaration of conformity. |
| 2. | Demonstrate knowledge of the published guidance relating to arboricultural lifting equipment | <p>Approved Code of Practice (ACOP)</p> <ul style="list-style-type: none"> 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 <p>Industry Code of Practice (ICOP)</p> <ul style="list-style-type: none"> document providing recommendations and guidance pertaining to the planning, management |

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| | | <p>and undertaking of tasks and operations within a specific industry good practice</p> <ul style="list-style-type: none"> • technical or industry good practice guidance that relates to specific arboricultural operations, such as climbing and rigging |
| 3. | State what it is that the LOLER regulations set out to do | <p>The Regulations require that lifting equipment provided for use at work is:</p> <ol style="list-style-type: none"> 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 |
| 4. | Define a lifting operation | An operation concerned with the lifting, lowering or suspending of a load. A 'load' may include a person |
| 5. | Define lifting equipment | Lifting equipment means work equipment for lifting or lowering loads and includes its attachments used for anchoring, fixing or supporting it |
| 6. | Define category 3 Personal Protective Equipment (PPE) specifically in relation to personal fall protection equipment | Category 3 PPE is intended to protect users from the risks of falling from height |
| 7. | <p>Demonstrate knowledge of the following terms in relation to arboricultural lifting equipment</p> <p>Minimum Breaking Strength (MBS) Working Load Limit (WLL) Safety Factor (SF) Safe Working Load (SWL) United Kingdom Conformity Assessed (UKCA) European Norm (EN) International Organisation for Standardisation (ISO) Newton (N)</p> | <ul style="list-style-type: none"> • 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 |

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| | Decanewton (daN) Kilonewton (kN) | <ul style="list-style-type: none"> • kN: Kilonewton (1000 Newtons) - approximately 100kg |
| 8. | Explain types of standards relevant to arboricultural lifting equipment | <ul style="list-style-type: none"> • 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 |
| 9. | Explain what is meant by 'Evidence of conformity' | <ul style="list-style-type: none"> • Evidence of conformity is a verifiable link between the product and a stated standard or directive |
| 10. | State what deems an individual 'Competent' for the purposes of "Thorough Examination" of arboricultural lifting equipment | <p>A competent person shall have:</p> <ul style="list-style-type: none"> • 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 |
| 11. | State the different types of checks, inspection and examination of arboricultural lifting equipment | <p>Different types of checks, inspection or examination of arboricultural lifting equipment include:</p> <ul style="list-style-type: none"> • pre-use check • interim recorded inspection for items subject to high levels of wear and tear • thorough examination |
| 12. | State when arboricultural lifting equipment should be thoroughly examined | <p>The thorough examination should take place:</p> <ul style="list-style-type: none"> • 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 |
| 13. | State the exceptional circumstances following which a 'Thorough Examination' may be required | <p>Exceptional circumstances following which a 'Thorough Examination' would be required include:</p> <ul style="list-style-type: none"> • 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 |
| 14. | Demonstrate knowledge of a 'personal fall protection system' | <p>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</p> |

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| | | includes a body holding device (harness) connected to a reliable anchor' |
| 15. | State types of arboricultural 'personal fall protection systems' | <ul style="list-style-type: none"> • Moving Rope Technique (MRT) • Stationary Rope Technique (SRT) |
| 16. | Explain the different karabiner shapes and their key characteristics | <p>To include:</p> <ul style="list-style-type: none"> • 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 |
| 17. | State the effects of different configurations on the working load limit of a sling | <p>Strength ratings of specific sling types (EN1492) to include:</p> <ul style="list-style-type: none"> • 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 |
| 18. | State a range of arboricultural lifting equipment that requires thorough examination | <p>Arboricultural lifting equipment that requires thorough examination includes:</p> <ul style="list-style-type: none"> • harnesses • ropes • connectors • pulleys • slings • lowering devices • ascenders/descenders • lanyards • friction savers • friction cord • chainsaw lanyards |
| 19. | Understand the benefits of equipment traceability | <p>The benefits of equipment traceability include:</p> <ul style="list-style-type: none"> • provides a link between product and manufacturer • provides proof of ownership • helps determine where and when an item was |

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| | | <p>purchased</p> <ul style="list-style-type: none"> • demonstrates when equipment was issued • provides evidence of who equipment was issued to |
| 20. | State the information that may be obtained, stored or recorded for arboricultural lifting equipment | <p>To ensure traceability of equipment the following information is required:</p> <ul style="list-style-type: none"> • manufacturer's instructions • date of purchase and supplier • evidence of conformity • dates of entry to service • written documentation of interim inspections • thorough examination records |
| 21. | Explain the different types of damage and defects that can affect metal items of equipment | <p>Different types of damage and defects that can affect metal items of equipment may include:</p> <ul style="list-style-type: none"> • corrosion (chemical damage) • loss of material cross section • abrasion • cracks • burrs • incorrect function of moving parts • deformation |
| 22. | Explain the different types of damage and defects that can affect textile items of equipment | <p>Different types of damage and defects that can affect textile items of equipment may include:</p> <ul style="list-style-type: none"> • cuts • abrasion • heat damage (burns/melting) • age • overloading • chemicals • deformation |
| 23. | State records that should be retained for arboricultural lifting equipment | <p>Records that should be retained for arboricultural lifting equipment include:</p> <ul style="list-style-type: none"> • purchase information including date and supplier • manufacturer's instructions • evidence of conformity • interim inspection records • record of thorough examination |
| 24. | State the information relating to the competent person to be contained within a "Thorough Examination" report | <p>Information relating to the competent person to be contained within a "Thorough Examination" report should include:</p> <ul style="list-style-type: none"> • name • address • qualifications • employment status (employed/self employed). If employed, state address of employer |

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| 25. | Demonstrate knowledge of dates to be contained within a 'Thorough Examination' report | <p>Dates to be contained within a 'Thorough Examination' report should include:</p> <ul style="list-style-type: none"> • 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 |
| 26. | Demonstrate knowledge of equipment marking by the end user or competent person | It may be permissible to mark or remark equipment with the approval of the manufacturer. |
| 27. | Conduct a 'Thorough Examination' of a range of arboricultural equipment provided by the assessor | <p>To include:</p> <ul style="list-style-type: none"> • 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 |
| 28. | Record the results of the 'Thorough Examination' | <p>Make a written report of the 'Thorough Examination' containing:</p> <ul style="list-style-type: none"> • 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 |

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| 29. | Dispose of waste safely in line with legislation | All waste produced is disposed of in line with legislation, good practice and site requirements |
| 30. | Used appropriate tools, equipment and personal protective equipment (PPE) | All tools, equipment and personal protective equipment is used in line with industry good practice |
| 31. | Carried out work to minimise environmental damage | It is ensured that any possible environmental damage is minimised at all times. |
| 32. | 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 Tables

Unit 301 Thorough examination of arboricultural equipment

Candidate name:

Date:

Start time:

Finish time:

All criteria must be achieved.

| Activity number and description | Achieved |
|---|----------|
| 1. Demonstrate knowledge of secondary legislation or regulations relating to arboricultural lifting equipment | |
| 2. Demonstrate knowledge of the published guidance relating to arboricultural lifting equipment | |
| 3. State what it is that the LOLER regulations set out to do | |
| 4. Define a lifting operation | |
| 5. Define lifting equipment | |
| 6. Define category 3 Personal Protective Equipment (PPE) specifically in relation to personal fall protection equipment | |
| 7. Demonstrate knowledge of the terms in relation to arboricultural lifting equipment: | |
| 8. Explain types of standards relevant to arboricultural lifting equipment | |
| 9. Explain what is meant by 'Evidence of conformity' | |
| 10. State what deems an individual 'Competent' for the purposes of "Thorough Examination" of arboricultural lifting equipment | |
| 11. State the different types of checks, inspection and examination of arboricultural lifting equipment | |
| 12. State when arboricultural lifting equipment should be thoroughly examined | |
| 13. State the exceptional circumstances following which a 'Thorough Examination' may be required | |
| 14. Demonstrate knowledge of a 'personal fall protection system' | |
| 15. State types of arboricultural 'personal fall protection systems' | |
| 16. Explain the different karabiner shapes and their key characteristics | |
| 17. State the effects of different configurations on the working load limit of a sling | |
| 18. State a range of arboricultural lifting equipment that requires thorough examination | |
| 19. Understand the benefits of equipment traceability | |
| 20. State the information that may be obtained, stored or recorded for arboricultural lifting equipment | |
| 21. Explain the different types of damage and defects that can affect metal items of equipment | |

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| 22. Explain the different types of damage and defects that can affect textile items of equipment | |
| 23. State records that should be retained for arboricultural lifting equipment | |
| 24. State the information relating to the competent person to be contained within a "Thorough Examination" report | |
| 25. Demonstrate knowledge of dates to be contained within a 'Thorough Examination' report | |
| 26. Demonstrate knowledge of equipment marking by the end user or competent person | |
| 27. Conduct a 'Thorough Examination' of a range of arboricultural equipment provided by the assessor | |
| 28. Record the results of the 'Thorough Examination' | |
| 29. Dispose of waste safely in line with legislation | |
| 30. Used appropriate tools, equipment and personal protective equipment (PPE) | |
| 31. Carried out work to minimise environmental damage | |
| 32. Worked in a way which maintains health and safety and is consistent with relevant legislation and industry good practice | |
| Grade (P/X) | |

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| Candidate signature and date | |
| Assessor signature and date | |

Assessor feedback:

Appendix 2 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.nptc.org.uk

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 online
- **Events:** dates and information on the latest Centre events
- **Online assessment:** how to register for e-assessments.

Useful contacts

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

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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
