City & Guilds NPTC Level 2 Award in Forest Machine Operations – Processing Timber (Mobile) (0020-31)

Version 1.1 (March 2025)

Assessment Pack – Centre and Candidate Version

Version and date	Change detail	Section
1.0 March 2024	First version	All
1.1 March 2025	Formatting changes	Throughout

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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 the following units and learning outcomes:

219 Prepare and operate machinery to process timber covering the following learning outcomes:

1. Be able to work safely
2. Be able to select, prepare and manoeuvre machinery
3. Be able to process timber
4. Know how to prepare machinery
5. Know how to process timber
6. Know relevant health and safety legislation and industry good practice

General guidance on the requirements for assessment can be found in the Assessor Guidance 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 1.5 – 3 hours.

Site/workshop requirements:
Trees/brash/stumps or materials suitable for the endorsement and machine the candidate is being assessed on and within capabilities of the machine.

Equipment/Machinery:
Base unit which the candidate already holds the COC for and processor relevant to the endorsement being assessed all fit for purpose and suitably maintained. Any tools which may be needed to carry out any maintenance which may be required. If relevant an in date LOLER certificate.

Consumables:
Fuels, oils and grease as may be required, if relevant to the machine relevant replacement parts such as blades, teeth, hammers or chains. PPE required as per site and machine. Operators' manual and/or training materials should be available if needed.

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

219 Prepare and operate machinery to process timber

Activity number and description from check list		Assessment criteria
1.1	Identify the hazards and risks associated with the working area and the proposed work	Identify hazards (anything with the potential to cause harm) and risks (who might be harmed), relevant to: The work area/work to be done Hazards • power lines • terrain • access routes • chain shot • risk zones • struck by timber • other Risks • operator • others on site • public • other machine operators • other The machine Hazards • struck by machine • access and egress • moving parts • hot surfaces • working at heights • spillages • other Risks • public • operator • environment • other
1.2	Use appropriate tools, equipment and personal protective equipment (PPE)	• All tools, equipment and Personal Protective Equipment are used in line with industry good practice e.g. AFAG/HSE • During all on site operations PPE in accordance with industry good practice must be worn Personal Protective Equipment identified could include: • safety helmet (if required)

		• hearing protection (where needed) • suitable protective gloves • protective boots • non snag outer clothing • high visibility clothing where risk assessment identifies it • hand cleaning materials • first aid kit • other
1.3	Carry out work specification in accordance with relevant legislation, industry good practice and maintains health and safety	• All activities must be completed in a way which protects the operator and those around them.
1.4	Carry out work to minimises environmental damage	• It is ensured that any possible environmental damage is minimised at all times during on site operations
2.1	Carry out pre and post-start checks to test all operating functions of the equipment	Planning work may include: • with minimal damage to the worksite • standing trees • tracks • roads • drains • environment • in accordance with the site and job specification • other Utilise additional safeguards such as: • barriers • banksman • signs • other workers • risk zone e.g. adjacent roads and tracks • other Pre and post start checks on base machine according to the operator's handbook and to include: • machine on level ground • ensure machine services in neutral and lowered where applicable • engine stopped and key removed • check engine oil, transmission/hydraulic oil, coolant and fuel level, engine air filter • importance of cleanliness • seat, steering mechanism and mirror adjustment • operator seat restraint is functional (where applicable)

		• check operator protection systems • check relevant access and egress points • check wheel nuts • check pin bush wear and security • check for cracks/fatigue • check for hydraulic leaks • security of components • check safety decals • LOLER certificate (if required) • radiators (coolant and hydraulic) • fuel filters and/or water trap • grease where and when appropriate Check security of loader to base • bolts cracks leaks Check security of loader attachment • bolts cracks Check attachment • security • condition • hydraulic leaks • pin and bushes • pipe work • guarding Maintenance of machine Chassis • cracks • pin security • bushes • cylinders • attachment • loose or broken bolts • cables and connections • guarding Saw chain (if fitted) • sharpness • tension (if applicable) • wear and tear • broken tie straps • lubricant • guarding Guide bar (if fitted) • straight • overheating • sprocket • nose • lubricant

		Sheers (if fitted) • sharp • cracks • straight • alignment • lubricant • guarding Circular saw (if fitted) • sharp • straight • cracks • missing teeth • set • lubricant • guarding Blades • sharp • straight • cracks • missing blades • balance • lubricant • guarding Hydraulic hoses • leaks • cracks • cuts • abrasions • security • guarding Environmental considerations • disposal • storage of oils on site • spill kit mats used
2.3	Manoeuvre the machine on site in a safe and effective way	Candidate to drive or manoeuvre machine • safe egress • stop in accordance with manufacturers recommendations • appropriate gear selection • smoothness of take off • drive in a straight line • left and right turn • reverse • appropriate speed for conditions • appropriate use of brakes • parking brake applied and effective

		• stop in accordance with manufacturers recommendations • safe egress
3.1	Process the timber in accordance with the job specification	Process timber according to job specification: • safely and efficiently • methodically • products are produced within the set standard • products segregated • ensure that any damage to the remaining standing trees or to the environment is minimal • saw not to be pointed at cab, where applicable • position machine correctly, safely and effectively • measuring device zeroed before processing • begins (if applicable) • other
3.2	Use machinery in accordance with relevant legislation and manufacturer's instructions	Use machinery in accordance: • relevant legislation and manufacturer's instructions • other
4.1	State the safety requirements, routine and functional checks required for machine and operator protection	Level ground • all fluid levels can be accurately checked • other Machine Services • security • unauthorised third party operation • other Cleanliness • personal contamination • system contamination • other Adjustment • ergonomics • visibility • other Restraint systems • personal safety • HSE requirement • other Operator protection systems • roll over protective structure (ROPS) • falling object protective structure FOPS)

		• operator protection structure (OPS) • other Access and Egress • operator safety • PUWER • other Wheel nuts • visually • torque wrench • operator's handbook
4.3	Explain the implications of terrain, ground conditions, season and weather on planning access routes and driving the machine	Route planning may be achieved by assessing: Terrain • roughness, slope • other Ground conditions • match ground conditions (ground bearing capacity) • other Season and weather • winter, summer • other
5.1	Describe how to gather and select material effectively	• minimise machine travel • identify tree species • gather material to maximise machine output (if applicable) • maximise machine input • branch formation (if applicable) • other
5.2	Describe how to process timber	Either Chipper • separate doubles and forked materials • separate out over sized materials • separate unwanted/hazardous materials • position in feed hopper • safe position selected for out feed chute • position machine to material • set machine to optimise machine output • correct feed speed • avoid overloading • deal with blockages safely • safe shutdown procedure • emergency stopping procedure • other OR Tub Grinder • separate doubles and forked materials

		• separate out over sized materials • separate unwanted/hazardous materials • safe position selected for out feed chute • position machine to material • set machine to optimise machine output • correct feed speed • avoid overloading • deal with blockages safely • safe shutdown procedure • emergency stopping procedure • other OR Brash Balers • separate out over sized materials • separate unwanted/hazardous materials • safe position selected for out feed • position machine to material • set machine to optimise machine output • correct feed speed • avoid overloading • chain shot risk zone identified • bales correctly positioned for subsequent extraction • bales wrapped securely • deal with blockages safely • safe shutdown procedure • emergency stopping procedure • other OR Splitters • separate doubles and forked materials • separate out over sized materials • separate unwanted/hazardous materials • safe position selected for processing attachment • position machine to material • set machine to optimise machine output • correct feed speed • avoid overloading • deal with trapped materials/mechanisms • safe shutdown procedure • emergency stopping procedure • other OR Stump Grinder • avoid unwanted/hazardous material • correct position of machine to material

		• set machine to optimise machine output • correct feed speed • avoid overloading • deal with jammed material safely • safe shutdown procedure • emergency stopping procedure • other
5.3	Describe how to ensure end product meets specification	• regular checks on specification of processed timber during operation and recognise malfunctions • measures manually with tape or other • measuring device (if applicable)
6.1	Outline key health and safety legislation and industry good practice	Outline key points from the legislation listed below: Health and Safety at Work Act (HSWA) (1974) – • general duties for employers and employees • maintain safe places of work • other Provision and Use of Work Equipment Regulations 1998 (PUWER 98) – • record keeping • operators adequately trained • equipment fit for purpose • other Lifting Operations and Lifting Equipment Regulations (1998) (LOLER) • main requirements of the LOLER required by the machine • risk zones • safe working load • inspection by a competent person • operating controls labelled • other Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR) • reporting of accidents • reporting of dangerous occurrences • other Working at Heights • adequate precautions taken for safe working procedures any height constitutes working at heights other Control of Substances Hazardous to Health (COSHH) Regulations (2002) • correct PPE to be identified

		• correct storage and application • disposal • other Industry Good Practice • Arboriculture Forestry Advisory Group (AFAG) information • Health and safety in forestry • Forest and water guidelines • Operators' manual Lone working • effective communication system • fail to safe system • reporting in times Line contact possible procedures: • where possible, drive away to safe area • if safe, stay in machine and contact power company/supervisor • jump from machine, bunny hop as far as possible Power lines • designated crossing point (goal posts) • liaison with power companies • site maps • AFAG • electricity at work • other
6.2	State why it is important to maintain good communication and team work within the working environment	Importance of communication could include: • health and safety • site planning/co-ordination • other
6.3	Describe the types of records that may be required for management and legislative requirements	Records: • logbook • service logbook • time sheet • maintenance schedule • other

Appendix 1 Practical table

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All criteria must be achieved.

Activity number and description	Achieved
1.1 Identify the hazards and risks associated with the working area and the proposed work	
1.2 Use appropriate tools, equipment and personal protective equipment (PPE)	
1.3 Carry out work specification in accordance with relevant legislation, industry good practice and maintains health and safety	
1.4 Carry out work to minimises environmental damage	
2.1 Carry out pre and post-start checks to test all operating functions of the equipment	
2.3 Manoeuvre the machine on site in a safe and effective way	
3.1 Process the timber in accordance with the job specification	
3.2 Use machinery in accordance with relevant legislation and manufacturer's instructions	
4.1 State the safety requirements, routine and functional checks required for machine and operator protection	
4.3 Explain the implications of terrain, ground conditions, season and weather on planning access routes and driving the machine	
5.1 Describe how to gather and select material effectively	
5.2 Describe how to process timber	
5.3 Describe how to ensure end product meets specification	
6.1 Outline key health and safety legislation and industry good practice	
6.2 State why it is important to maintain good communication and team work within the working environment	
6.3 Describe the types of records that may be required for management and legislative requirements	

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
Approved centres must have effective quality assurance systems to ensure optimum delivery and assessment of qualifications. Quality assurance includes initial centre approval, qualification approval and the centre's own internal procedures for monitoring quality. Centres are responsible for internal quality assurance and City & Guilds is responsible for external quality assurance. All external quality assurance processes reflect the minimum requirements for verified and moderated assessments, as detailed in the Centre Assessment Standards Scrutiny (CASS), section H2 of Ofqual's General Conditions. For more information on both CASS and City & Guilds Quality Assurance processes visit: the **What is CASS?** and **Quality Assurance Standards** documents on the City & Guilds website.

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
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City & Guilds is the global skills partner, empowering people, organisations and economies to develop the skills they need for growth. With almost 150 years of trusted expertise, we support people into work, help them develop on the job and move into the next job.

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