City & Guilds NPTC Level 2 Award in the Safe use of a Stump Grinder (0020-59)

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

Contents

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:

220 Preapare and operate a stump grinder covering the following learning outcomes:

1. Know the health and safety requirements for operating a stump grinder
2. Be able to carry out a risk assessment on a site
3. Be able to prepare the equipment and site for stump grinder operations
4. Be able to operate a stump grinder
5. Carry out maintenance on a stump grinder

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:
Site suitable for stump grinding operations with the machine the candidate is being assessed on with materials within the limitations of the head being used. A minimum of one stump of at least 380mm diameter. If the stump grinder is mounted to a base machine the candidate must already hold the relevant COC for this base.

Equipment/Machinery:
Stump grinder suitable for the task, all fit for purpose and suitably maintained. Any tools which may be needed to carry out any maintenance which may be required. Replacement cutter/teeth as relevant.

Consumables:
Fuels, oils and grease as may be required. 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

220 Prepare and operate a stump grinder

Activity number and description from check list		Assessment criteria
1.1	State legislation covering stump grinding operations	May include the following: • The Health & Safety at Work Act 1974 – specified duties under the act as an employee • The Management of Health and Safety at Work Regulations 1999 – a risk assessment must be carried for all activities • Personal Protective Equipment Regulations 1992 – PPE must be supplied and worn • Manual Handling Operations Regulations 1992 – not to manually handle, use safe lifting techniques • The Control of Vibration at Work Regulations 2005 – to reduce the risk to health from vibrations • Provision and Use of Work Equipment Regulations (PUWER) 1998 – requires that regular checks are made • Noise at Work Regulations 2005 – hearing protection must be worn over 85db • COSHH - hazard awareness of toxic vegetation/chemicals • Countryside and Wildlife Act 1981 – operation carried out at times to minimise the impact on wildlife • RIDDOR - reporting of dangerous occurrences and accidents • Provision and Use of Work Equipment Regulations (PUWER) 1998 • self-propelled machines • Roll Over Protective Structure (ROPS) • Power Take Off (PTO)
1.2	Explain the risk assessment process	The risk assessment process may contain the following five steps: • identify the hazards • decide who might be harmed and how • evaluate the risks and decide on precautions • record the findings and implement them • review and update the assessment as necessary

1.3	State emergency planning procedures relevant to the work area	Emergency procedures relevant to a work site may include: • location name • grid reference • designated meeting place • site location name • nearest access point • street name/district • type of access (public road/light vehicles, four-wheel drive) • suitable helicopter landing area • phone number of nearest doctor • location of nearest accident and emergency hospital and phone number • works manager contact details • your own contact number/mobile number • other
1.4	State the environmental and public hazard considerations when dealing with arisings from stump grinding	Environmental considerations to include: • mouldy or dead material that produces fungal spores • physical hazard to public • hazard to road users from flying debris • risk of blocking drains, watercourses etc • hazard to wildlife, plants and trees • hazard to property from flying debris
1.5	State precautions to be observed when working adjacent to highways	Precautions observed when working adjacent to highways may include: • wear high visibility clothing • warning signs deployed in accordance with department of transport requirements • exclusion zone / barriers set up to protect both operators and public • position machine safely • direction of flying debris • discharge barriers set up as appropriate • ensure constant awareness of traffic
2.1	Identify 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 and how), relevant to: • The work area • The work to be done
2.2	Identify safety features of the stump grinder	Safety features identified must include: • warning / information symbols identified and interpreted • machine safety guards secured

		• controls identified and checked for function and direction of operation • brakes, chocks, stabilisers and other security devices checked • sweep mechanism (if applicable)
2.3	State factors to consider when manoeuvring a stump grinder to the work position	Machine moved to work position in safe manner may include: • awareness of slopes and obstacles on the ground • use of banksman if required when reversing / moving stump grinder where visibility impaired • machine moved at safe speed • appropriate use of operator controls for self-propelled machines • appropriate use of hitching attachment/ three point linkage when manoeuvring a tractor mounted machine • appropriate control of trailed stump grinder when manoeuvring on site • machines have high centre of gravity therefore tendency to tip over • chocking of wheels/tracks on slopes • avoid turning on slopes / ramps with tracked machine • operator must be on upper side when ascending or descending slopes • extreme care when climbing over an obstacle (e.g. roots, holes, steps) or change of angle at top of ramp as machine can rear up / slew violently • hydraulic fluid must be warm before negotiating uphill slope • ensure ramps / bridging to support weight of machine are strong enough
2.4	Carry out site inspection	Site inspection carried out may include: • walk the site and remove or mark hazards • identifying location of underground services • confirm the condition of the site as acceptable for the operation to take place • report to the appropriate person if the site condition is unsuitable • set out warning signs and barriers (if appropriate) to advise or exclude public/animals • implement suitable controls to protect the operator

3.1	Carry out pre start checks on the stump grinder	For trailed stump grinder: • jockey wheel lowered or hitch attachment on vehicle secure • brakes, chocks, stabiliser(s) applied as appropriate For 3-point linkage machines: • attachment of lift arms, top link and stabilisers is secure • machine is correctly aligned • engagement of PTO shaft or other drive mechanisms is secure and safe • all PTO guards are secure and in good condition For tracked stump grinders: • tracks, rollers, sprockets etc are in safe condition and tensioned / aligned correctly • hydraulic levelling / widening is employed as appropriate (if fitted)
3.2	Carry out safe starting and post operational checks	Ensure that: • safe starting zone selected • all bystanders at an appropriate safety distance • visual prestart checks carried out • stump grinder started in accordance with manufacturers recommendations • throttle control adjusted to achieve full working speed • operator protection and restart mechanism checked for correct operation (if fitted) • emergency stop control checked for effectiveness • all controls functioning correctly • stump grinder stopped safely and correctly; key removed
3.3	Prepare the material for grinding	Ensure that: • remove debris from around stump base • cut stump down to ground level, if applicable • erect screen/barriers, as appropriate
3.4	Use Personal Protective Equipment (PPE) and machine safety features for stump grinding operations	As per manufacturers recommendations, PPE should include appropriate: • safety helmet • eye protection • ear defenders • gloves • non snag clothing • trousers to protect from flying debris

		• safety boots with protective toecaps • personal first aid kits should be available • additional PPE as required by the risk assessment
4.1	Carry out the grinding operation	Operate machine to grind a tree stump of at least 380mm diameter as per site specification Ensure that: • safety procedures are adopted • area clear of other persons • engine speed/gear set to obtain optimum output • optimum depth of swath across stump is obtained • stump is ground to specified depth • arisings disposed of / back filled appropriately Factors to consider when dealing with larger stumps: • disengage cutter wheel • ensure cutter wheel is stationary before repositioning • back fill arisings to improve stability • re-position machine to remove stump in sections Convert to transport position: • isolate power source and convert to transport position as per manufacturer's recommendations Site checked and tidied: • site is safe and secure • debris cleared according to site specification • breakdown the site
5.1	Explain the removal and replacement of the cutters	Explain the removal and replacement of two cutters • as per manufacturer's instruction book • ensure that machine is safe to work on • ensure that damaged cutters identified • use of setting tools • remove cutters • replace new/replacement cutters • tighten all nuts to correct torque setting • clearances checked on completion Possible causes of damage to teeth may include: • loose mountings / bolts / nuts • over-tightened bolts / nuts

		• soil damage • damage from metal / stone / hard objects Possible consequences of poorly maintained cutters could include: • machine not working efficiently • cutting mechanism overheats/ warps • increased likelihood of jamming • increased vibration
5.2	State post operational checks to be carried out on the stump grinder	Post operational checks may include: • stump grinder inspected and cleaned to establish any wear, damaged and/or missing components through use • ensures any defects can be rectified before it is next used • other operators / supervisor etc. can be informed through a reporting procedure that defects are present
5.3	Carry out maintenance on the stump grinder	Maintenance tasks carried out as outlined in manufacturer's or operators' instruction book, including: • wear appropriate PPE • ensure that machine is made safe • key removed oil level sufficient • air filter inspected and cleaned • cooling system inspected & cleaned & coolant level checked (if appropriate) • fuel system, starting and charging systems inspected and commented on • electrical system checked for damage • greasing and lubricating points • pulleys, clutches, shafts etc. inspected depending on style of machine • drive belts in good condition and tensioned correctly (if fitted) • hydraulic system checked for leaks or damage (hoses, pump, motors, spool valves, filters etc.) • linkages, pivots, springs etc. inspected and lubricated • hydraulic oil level correct Cutting system checks may include: • cutting teeth • are sharp • clearance is correct • are secure • as per manufacturer's instruction book • ensure that machine is safe to work on • ensure that damaged cutters identified

		• use of setting tools • remove cutters • replace new/replacement cutters • tighten all nuts to correct torque setting • clearances checked on completion
5.4	Reassemble stump grinder to a functional and operational standard	Reassembled according to manufacturer's recommendations as appropriate, check that: • linkage/draw bar settings are correct • stabilisers are used • controls/handlebars set correctly • brake is engaged if appropriate

Appendix 1 Practical table

220 Prepare and operate a stump grinder

All criteria must be achieved.

Activity number and description	Achieved
1.1 State legislation covering stump grinding operations	
1.2 Explain the risk assessment process	
1.3 State emergency planning procedures relevant to the work area	
1.4 State the environmental and public hazard considerations when dealing with arisings from stump grinding	
1.5 State precautions to be observed when working adjacent to highways	
2.1 Identify hazards and risks associated with the working area and the proposed work	
2.2 Identify safety features of the stump grinder	
2.3 State factors to consider when manoeuvring a stump grinder to the work position	
2.4 Carry out site inspection	
3.1 Carry out prestart checks on the stump grinder	
3.2 Carry out safe starting and post operational checks	
3.3 Prepare the material for grinding	
3.4 Use Personal Protective Equipment (PPE) and machine safety features for stump grinding operations	
4.1 Carry out the grinding operation	
5.1 Explain the removal and replacement of the cutters	
5.2 State post operational checks to be carried out on the stump grinder	
5.3 Carry out maintenance on the stump grinder	
5.4 Reassemble stump grinder to a functional and operational standard	

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
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

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