

City & Guilds Level 2 Certificate of Competence in Tractor Driving and Related Operations (0014-31)

Version 1.2 (March 2025)

Assessment Pack – Candidate Version

Version and date	Change detail	Section
1.0 October 2019	First version	
1.1 March 2020	Checklists moved to appendices	Appendices
	Introduction updated	Introduction updated
1.2 March 2025	Formatted	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 contains the following units and learning outcomes:

Unit 221 Prepare and operate a tractor and attachments

1. Know the requirements of risk assessment, legislation and safety when operating a tractor with attachments
2. Carry out pre-use and pre-start checks to a tractor and attachments
3. Operate a tractor and attachments.

Unit 222 Operate a loader

1. Know the legal requirements and pre-start checks for operating a loader attached to a tractor
2. Operate a loader attached to a tractor.

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.

Assessment Time

The expected assessment time for this qualification should take no longer than 1.5 – 3 hours.

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

Practical observation descriptor table

221 - Prepare and operate a tractor and attachments

Activity number and description from check list	Assessment criteria
<p>1</p> <p>Carry out a site-specific hazard and risk assessment</p>	<p>May include:</p> <ul style="list-style-type: none"> • slopes • ground conditions • contact with moving parts • manual handling • overhead obstructions • surface obstructions • people and/or animals • ditches/waterways • hot components • fuel and oil • biohazards • dust/fungal spores. <p>To include:</p> <ul style="list-style-type: none"> • evaluate risks • implement appropriate control measures • confirm that the condition of the site is acceptable • confirm who they would report to if the site condition is unsuitable.
<p>2</p> <p>Describe the relevant health and safety legislation in relation to tractor operations</p>	<p>May include the following:</p> <ul style="list-style-type: none"> • Health and Safety at Work Etc. Act (HASAWA): <ul style="list-style-type: none"> ○ duties imposed on the employer/employee/others. • Provision and Use of Work Equipment Regulations (PUWER): <ul style="list-style-type: none"> ○ machine must be suitable for the task ○ machine must be properly maintained according to manufacturer's recommendations • Management of Health and Safety at Work Regulations (MHSWR):

		<ul style="list-style-type: none"> ○ risk assessments must be completed and communicated to all relevant persons • Manual Handling Operations Regulations (MHOR): <ul style="list-style-type: none"> ○ avoid manual handling where possible, use safe lifting techniques • Control of Substances Hazardous to Health (COSHH): <ul style="list-style-type: none"> ○ fuel handling and protection from contaminants • Personal Protective Equipment Regulations (PPE): <ul style="list-style-type: none"> ○ PPE must be provided, maintained and worn • The Control of Noise at Work Regulations: <ul style="list-style-type: none"> ○ hearing protection must be used over 85 decibels (dB) • Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR): <ul style="list-style-type: none"> ○ certain categories of injuries must be reported • Wildlife and Countryside Act (WCA): <ul style="list-style-type: none"> ○ operations must be carried out avoiding disturbance to wildlife • Health & Safety (First Aid) Regulations: <ul style="list-style-type: none"> ○ need for an accident book and knowledge of where it is kept.
3	Describe the relevant legal and safety considerations when operating a tractor on or near a public highway	<p>May include:</p> <ul style="list-style-type: none"> • be road legal • appropriate vehicle tax/exemption • insurance cover • operator holds valid driving licence • have an orange flashing beacon when driven on unrestricted dual carriageways (other road types subject to individual Risk Assessment) • ensure safe speed appropriate to conditions • comply with relevant speed limits • four-wheel drive mode disengaged (if applicable) • differential lock disengaged • independent brakes locked together (if applicable)

4	Select and use the appropriate personal protective clothing and equipment	<p>May include:</p> <ul style="list-style-type: none"> • safety boots • ear defenders • dust mask • head protection • face/eye protection • hand protection • non- snag clothing • any other protection highlighted in the risk assessment.
5	Identify safety issues in relation to the preparation and use of tractors and implements	<p>May include:</p> <ul style="list-style-type: none"> • do not enter danger zones or work under unsupported equipment • If using a remote linkage control the operator must not be in a position whereby injury may be caused by the tractor or implement • clear communication is established between driver and assistant. <p>To include:</p> <ul style="list-style-type: none"> • SAFE STOP procedure explained.
6	Identify and explain the function of all instruments and controls	<p>To include:</p> <ul style="list-style-type: none"> • candidates must safely mount and dismount from tractor cab using hand and footholds provided (usually facing inwards). <p>To include:</p> <ul style="list-style-type: none"> • all internal/external controls and instrumentation applicable to the tractor being used for the assessment. <p>To include:</p> <ul style="list-style-type: none"> • interpretation of information and warning symbols • interpretation of decals.
7	State how to maintain the efficiency of tractor and attachment performance	<p>May include:</p> <ul style="list-style-type: none"> • ensure air filter is clean • effective use of engine speed control • appropriate gear selection • effective use of engine/transmission management systems (if applicable) • use differential lock to prevent wheel slip • linkage control systems (eg draft control)

		<ul style="list-style-type: none"> • ensure appropriate tyre pressures for the task • use of economy PTO mode.
8	Carry out checks to the tractor to ensure that it is safe to use	<p>May include:</p> <ul style="list-style-type: none"> • horn working • all lights working • cab glass undamaged and clean, • wipers in working order • mirrors clean and undamaged • indicators clearly visible and undamaged • operator presence controls • wheel nuts tight and secure (visual check only) • tyre pressures (visual check only) • tyres free from excessive wear and damage • lubrication sites identified • absence/severity of oil leaks • battery isolation devices working. <p>To include:</p> <ul style="list-style-type: none"> • all pre-start checks applicable to the tractor being used for the assessment – as specified in the manual. <p>May include:</p> <ul style="list-style-type: none"> • mirrors adjusted for clear view • steering wheel adjusted to suit operator • seat adjusted to suit operator • condition and function of seatbelt. <p>To include:</p> <ul style="list-style-type: none"> • controls in neutral • cold starting technique demonstrated or explained • engine started • SAFE STOP procedures followed. <p>May include:</p> <ul style="list-style-type: none"> • the PTO stub shaft is fully enclosed when not in use • all guards are secure and undamaged as identified in operator's manual

		<ul style="list-style-type: none"> • exhaust heat shield is in place and undamaged. <p>To include:</p> <ul style="list-style-type: none"> • all round observation before moving off • brakes checked by driving short distance on level, smooth ground and apply foot brake • SAFE STOP procedures followed.
9	Describe the potential hazards that could arise when using a tractor and the correct procedures/precautions to be observed when driving	<p>May include:</p> <ul style="list-style-type: none"> • loss of control • braking distance is increased. <p>May include:</p> <ul style="list-style-type: none"> • avoid excessive speed • be aware of increased stopping distances and the need to brake earlier • using engine braking to slow the machine. <p>May include:</p> <ul style="list-style-type: none"> • overturning • mounted implements colliding with objects • trailed implements come into contact with the tractor or other objects. <p>May include:</p> <ul style="list-style-type: none"> • avoid sharp turns • turns need to be taken slowly • make wider turns. <p>May include:</p> <ul style="list-style-type: none"> • tractor could stall or run away • loss of traction • 'jack-knifing'. <p>May include:</p> <ul style="list-style-type: none"> • appropriate low gear should be selected before encountering the slope • do not de-clutch when descending the slope • use auxiliary braking system. <p>May include:</p>

		<ul style="list-style-type: none"> • load shifting • implement/trailer could become detached from tractor • weight of attachment could lead to excessive 'bouncing' • operator injury. <p>May include:</p> <ul style="list-style-type: none"> • maintain low speed to reduce 'bouncing' • try to avoid potholes and bumps • load should be secured to prevent movement. <p>May include:</p> <ul style="list-style-type: none"> • load shifting • trailer will tend to slide/pull downhill • overturning. <p>May include:</p> <ul style="list-style-type: none"> • maintain slow speed when driving across slopes • maintain a low centre of gravity • use wide wheel track setting to improve stability of the tractor. <p>May include:</p> <ul style="list-style-type: none"> • severity of the slope • stability of the tractor • direction of turn • type of attachment (ie mounted trailed, full or empty) • ground conditions.
10	Operate a tractor with trailer	<p>To include:</p> <ul style="list-style-type: none"> • visual inspection of trailer • reverse tractor to align with trailer drawbar • parking brake applied • tractor gears put in neutral • hydraulic levers are in disengaged position and the system is depressurised • trailer is hitched properly and that the catches/pins are properly secured • weight not carried on hydraulics • the hydraulic couplings are cleaned

		<ul style="list-style-type: none"> • correct length of hydraulic pipe and condition • correct drawbar length to ensure adequate weight transference • hydraulic/pneumatic/electrical couplings correctly connected • trailer parking brake is released/wheel chocks removed • SAFE STOP procedures followed. <p>To include:</p> <ul style="list-style-type: none"> • select appropriate gear • ensure take off is smooth • drive at appropriate, safe speed for conditions • brake safely • manoeuvre safely with awareness of surroundings at all times. <p>To include:</p> <ul style="list-style-type: none"> • the area is checked for hazards • reverse the trailer to the specified position for tipping • tip the trailer • lower the trailer. <p>To include:</p> <ul style="list-style-type: none"> • drive the trailer to the parking area, reverse into designated position • tractor parking brake is applied • tractor is put into neutral gear • hydraulic levers are in disengaged position and the system is de-pressurised • the wheels are chocked/trailer parking brake applied (if applicable) • hydraulic/pneumatic pipes and electrics are disconnected and stored correctly • trailer is unhitched • tractor auto hitch correctly raised and locked • SAFE STOP procedures followed.
11	Attach a three-point linkage mounted implement to the tractor	<p>May include:</p> <ul style="list-style-type: none"> • compatibility of categories between tractor and implement • linkage balls changed • bushes/sleeves are used • stepped pins are used.

		<p>To include:</p> <ul style="list-style-type: none"> attach the three-point linkage using any safe method linkage adjusted to level implement (as appropriate) eliminate undue side play <p>SAFE STOP procedures followed.</p>
12	Detach a three-point linkage mounted implement to the tractor	<p>To include:</p> <ul style="list-style-type: none"> position implement on suitable site ensure parking brake is applied before leaving cab the implement is detached using any safe method SAFE STOP procedures followed.
13	State the statutory guarding requirements for PTO shafts	<p>To include:</p> <ul style="list-style-type: none"> the PTO shaft is fully enclosed when attached the PTO shaft guard is secured to tractor and implement to prevent rotation.
14	Attach a PTO drive to the tractor	<p>May include:</p> <ul style="list-style-type: none"> tractor and PTO machine are compatible correct speed stated for implement correct drawbar length to ensure adequate PTO shaft length/overlap/angle correct overlap of sliding shaft and the guards shaft is adequately lubricated use of 'economy mode' explained tractor stub shaft is fully enclosed when no implement is attached. <p>May include</p> <ul style="list-style-type: none"> excess wear on implement excess vibration in cab increased risk of stones/debris being thrown up implement may not achieve desired result. <p>To include</p> <ul style="list-style-type: none"> SAFE STOP procedure followed prior to attaching PTO shaft fit power take off shaft to tractor secure power take off shaft guards

		<ul style="list-style-type: none"> ensure guards comply with current regulations <p>PTO engagement/ disengagement and speed (appropriate to implement) explained.</p>
15	Detach a PTO drive from the tractor	<p>To include:</p> <ul style="list-style-type: none"> SAFE STOP procedure followed prior to detaching PTO shaft tractor stub shaft is fully enclosed.
16	Park and secure the machine	<p>To include:</p> <ul style="list-style-type: none"> move to secure site SAFE STOP procedure followed dismount from the tractor safely using correct hand and footholds lock cab (if applicable) isolate battery (if applicable).
17	Describe how to clean the tractor and equipment after use and the reasons for cleaning	<p>May include</p> <ul style="list-style-type: none"> prevents personal contamination prevents corrosion prevents soiling of roads makes visual inspection for damage possible facilitates maintenance and adjustments. <p>May include:</p> <ul style="list-style-type: none"> a brush compressed/blown air water/pressure washer. <p>To include:</p> <ul style="list-style-type: none"> eye/face protection safety footwear overall/coverall hand protection dust mask.
18	Describe post-operational checks	<p>May include:</p> <ul style="list-style-type: none"> inspect for wear and damage faults can be identified prior to being used again could prevent another operator from using it if in a potentially dangerous condition.

222 - Operate a loader

Activity number and description from check list	Assessment criteria
<p>1.</p> <p>Describe the relevant legal and safety requirements in relation to loader operations</p>	<p>May include:</p> <ul style="list-style-type: none"> • all loaders and loader attachments should be regularly inspected • information on lifting capacity and safe working load should be available • awareness of overhead hazards • safe loader position when moving/operating loader – to maximise visibility, minimise projection and ensure stability • awareness of live loads • loader should not travel on public highway while carrying a load.
<p>2.</p> <p>Check loader attachment to the tractor</p>	<p>To include:</p> <ul style="list-style-type: none"> • loader attachment pins • hydraulic pipes • couplings • steelwork for signs of wear/fatigue/cracking • lubrication points • attachment pins • loader controls. <p>May include:</p> <ul style="list-style-type: none"> • sub-frame attachment bolts and securing devices can work loose and break as they are subject to movement and fatigue <p>May include:</p> <ul style="list-style-type: none"> • use of rear ballast • safe working capacity of loader.
<p>3.</p> <p>State the factors to consider when removing and refitting a loader attachment</p>	<p>May include:</p> <ul style="list-style-type: none"> • clear communication is established between operator and assistant • loader attachment is changed using methods as specified by the manufacturer • adopt safe methods at all times • safe and accurate use of the hydraulic controls

		<ul style="list-style-type: none"> • ensure that the attachment is secured safely • comply with manual handling regulations during activity.
4.	Carry out daily maintenance and pre-start checks	<p>To include:</p> <ul style="list-style-type: none"> • daily maintenance and pre-start checks carried out as specified in the unit.
5.	Check tyre pressures are appropriate for loader work	<p>To include:</p> <ul style="list-style-type: none"> • visual inspection carried out.
6.	Operate a loader	<p>To include:</p> <ul style="list-style-type: none"> • follow safe starting procedures • fit and secure attachment • terrain negotiated safely • reversing is carried out safely • identify and avoid hazards including overhead power lines • trailer positioned to give minimum travel and turning • avoid excessive material spillage • manoeuvre machine safely • ensure all-round observation • work within optimum capacity of loader • ensure even loading of trailer • trailer not overloaded • ensure minimum wheel slip/tyre wear • avoid contact between loader and trailer • clean and tidy work area after loading as necessary • remove attachment.
7.	Park and secure the machine	<p>To include:</p> <ul style="list-style-type: none"> • move to secure site • SAFE STOP procedure followed • dismount from the tractor safely using correct hand and footholds • lock cab (if applicable) • isolate battery (if applicable).

Appendix 1 Practical Table

221 - Prepare and operate a tractor and attachments

All criteria must be achieved.

Activity number and description		Achieved
1.	Carry out a site-specific hazard and risk assessment	
2.	Describe the relevant health and safety legislation in relation to tractor operations	
3.	Describe the relevant legal and safety considerations when operating a tractor on or near a public highway	
4.	Select and use the appropriate personal protective clothing and equipment	
5.	Identify safety issues in relation to the preparation and use of tractors and implements	
6.	Identify and explain the function of all instruments and controls	
7.	State how to maintain the efficiency of tractor and attachment performance	
8.	Carry out checks to the tractor to ensure that it is safe to use	
9.	Describe the potential hazards that could arise when using a tractor and the correct procedures/precautions to be observed when driving	
10.	Operate a tractor with trailer	
11.	Attach a three-point linkage mounted implement to the tractor	
12.	Detach a three-point linkage mounted implement to the tractor	
13.	State the statutory guarding requirements for PTO shafts	
14.	Attach a PTO drive to the tractor	
15.	Detach a PTO drive from the tractor	
16.	Park and secure the machine	
17.	Describe how to clean the tractor and equipment after use and the reasons for cleaning	
18.	Describe post-operational checks	
Grade (P/X)		
Candidate signature and date		
Assessor signature and date		
Assessor feedback:		

222 - Operate a loader

All criteria must be achieved.

Activity number and description		Achieved
1.	Describe the relevant legal and safety requirements in relation to loader operations	
2.	Check loader attachment to the tractor	
3.	State the factors to consider when removing and refitting a loader attachment	
4.	Carry out daily maintenance and pre-start checks	
5.	Check tyre pressures are appropriate for loader work	
6.	Operate a loader	
7.	Park and secure the machine	
Grade (P/X)		
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. To download the documents and to find other useful documents, go to **www.cityandguilds.com** or click on the links below:

Centre handbook: quality assurance standards

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.

Centre assessment: quality assurance standards

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

This 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.

City & Guilds

For over 140 years, we have worked with people, organisations and economies to help them identify and develop the skills they need to thrive. We understand the life-changing link between skills development, social mobility, prosperity and success. Everything we do is focused on developing and delivering high-quality training, qualifications, assessments and credentials that lead to jobs and meet the changing needs of industry.

We partner with our customers to deliver work-based learning programmes that build competency to support better prospects for people, organisations and wider society. We create flexible learning pathways that support lifelong employability because we believe that people deserve the opportunity to (re)train and (re)learn again and again – gaining new skills at every stage of life, regardless of where they start.

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