

City & Guilds Level 2 Certificate of Competence in Fork Lift Truck Operations (0014-33)

Version 2.0 (September 2026)

Qualification Handbook

Candidates are **not** permitted to refer to this document
during the practical observation and questioning.

Qualification at a glance

Subject area	Land-based machinery
City & Guilds number	0014-33
Age group	16+
Entry requirements	Centres must ensure that any pre-requisites stated in the What is this qualification about? section are met.
Endorsements	954/654 Rough Terrain Telescopic (fuel/battery) 955/655 Masted (fuel/battery) 956/656 Counterbalance (fuel/battery) 989/689 Rough terrain telescopic, materials handling (fuel/battery) 990/690 Masted, materials handling (fuel/battery) 754/764 Recertification Rough terrain telescopic (fuel/battery) 756/766 Recertification Counterbalance (fuel/battery)
Assessment	To gain this qualification, candidates must successfully achieve the following assessments: Practical assessment with oral questioning by a City & Guilds NPTC approved assessor. The assessor can be the same individual who carried out the training or could be a different person. The assessor must be approved and registered with City & Guilds NPTC. The assessment must be a stand-alone process that is separate to the training and cannot be spread out across the length of the training course. Therefore, the assessment must be conducted at the end of the training course or on a separate day.
Grading	Pass only
Approvals	Full centre approval Qualification approval
Support materials	Candidate Pack Assessor Pack Record of Assessment (ROA)
Registration and certification	Registration and certification of this qualification is through the Online Registration System (ORS) via Walled Garden and is subject to end dates.

Title and level	Size (GLH)	TQT	City & Guilds qualification number	Ofqual accreditation number
City & Guilds Level 2 Certificate of Competence in Fork Lift Truck Operations	21 - 24	24 - 28	0014-33	603/5339/9

Version and date	Change detail	Section
1.0 February 2024	First version	
1.1 July 2020	Certification module numbers updated	Introduction
1.2 May 2025	Update to Quality Assurance Statement	Centre requirements
	Added “Delivering the qualification”, “Assessment”, “Units”	Throughout
	Changes to Formatting	Throughout
2.0 September 2026	Updated content to include battery-powered machinery	Throughout

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1 Introduction

This document tells you what you need to do to deliver the **City & Guilds Level 2 Certificate of Competence in Fork Lift Truck Operations (0014-33)**.

Area	Description
Who is this qualification for?	The qualification is aimed at those who operate a forklift truck as part of their work in agriculture, horticulture or distribution and warehousing. It has been developed to cover the “basic training” requirements of the Approved Code of Practice for Rider-operated Lift Trucks. It will provide the individual with the knowledge, understanding and skills required to prepare and operate a forklift truck safely and to industry standards in line with current legislation.
What does this qualification cover?	Individuals can choose the type of forklift truck for assessment: counterbalance, rough terrain mast or telescopic. The assessment covers the preparation and operation of the machine, pre-use maintenance and safety checks, recognition of controls and instruments, and operating to the capacity of the machine. There is an optional unit that covers the use of a forklift truck for materials handling. The machine can be powered by liquid fuel or a battery. The individual can choose to be assessed using a liquid fuel or a battery machine or both.
Will the qualification lead to employment? If so, in which job role and at what level?	This qualification will support progression into employment where safe operation of a forklift truck 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. However, achievement of this qualification does not replace any legal requirement to obtain a driving licence for operation on the highway.
Why choose this qualification over similar qualifications?	This is a specialist qualification demonstrating the individual is able to safely operate a forklift truck to a recognised level of competency.
Will the qualification lead to further learning?	Individuals who successfully complete this qualification could increase their level of proficiency through consolidation practice within a working environment or develop skills in safely operating other land-based machinery.
Employer/Higher Education Institutions	The National Farmers Union
Who did we develop the qualification with?	Developed with City & Guilds NPTC stakeholders, associates and industry representatives.
Is it part of an apprenticeship framework or initiative?	No

Assessment guidance for the candidate

A list of registered assessment centres is available from City & Guilds NPTC (www.nptc.org.uk).

Assessment is a process by which it is confirmed that the candidate is competent in the unit(s) within the award to which the assessment relates. It is the process of collecting evidence about the candidate's capabilities and judging whether that evidence is sufficient to attribute competence.

The candidate must be registered through the City & Guilds approved assessment centre for this qualification prior to the assessment.

2 Qualification structure

For the **City & Guilds Level 2 Certificate of Competence in Fork Lift Truck Operations (Rough terrain telescopic)** learners must be trained and assessed in the units below. The qualification will be endorsed to the context of the unit assessed:

City & Guilds unit number	Unit title	GLH
Mandatory unit		
226	Prepare and operate a rough terrain telescopic or masted forklift truck	21
Certification Module Number	Certification Module Title	
954	Rough terrain telescopic (Fuel-powered)	
654	Rough terrain telescopic (Battery-powered)	
754	Recertification Rough terrain telescopic (Fuel-powered)	
764	Recertification Rough terrain telescopic (Battery-powered)	

If a battery-powered module (eg 654) is being assessed within 12 months of the **equivalent** fuel-powered module (eg 954), or vice versa, the candidate is exempt from being re-assessed against the following criteria in Unit 226: 1.1, 1.2, 1.3, 1.4, 2.1, 2.3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7.

For the **City & Guilds Level 2 Certificate of Competence in Fork Lift Truck Operations (Rough terrain telescopic, materials handling)** learners must be trained and assessed in the units below. The qualification will be endorsed to the context of the unit assessed:

City & Guilds unit number	Unit title	GLH
Mandatory unit		
226	Prepare and operate a rough terrain telescopic or masted forklift truck	21
Elective unit		
228	Operate a rough terrain telescopic or masted forklift truck for materials handling	3
Certification Module Number	Certification Module Title	
989	Rough terrain telescopic, materials handling (Fuel-powered)	
689	Rough terrain telescopic, materials handling (Battery-powered)	

If a battery-powered module (eg 689) is being assessed within 12 months of the **equivalent** fuel-powered module (eg 989), or vice versa, the candidate is exempt from being re-assessed against the following criteria: Unit 226 1.1, 1.2, 1.3, 1.4, 2.1, 2.3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7 and Unit 228: 1.1, 1.2, 1.3, 1.4.

For the **City & Guilds Level 2 Certificate of Competence in Fork Lift Truck Operations (Masted)** learners must be trained and assessed in the units listed below. The qualification will be endorsed to the context of the unit assessed:

City & Guilds unit number	Unit title	GLH
Mandatory unit		
226	Prepare and operate a rough terrain telescopic or masted forklift truck	21
Certification Module Number	Certification Module Title	
955	Masted (Fuel-powered)	
655	Masted (Battery-powered)	

If a battery-powered module (eg 655) is being assessed within 12 months of the **equivalent** fuel-powered module (eg 955), or vice versa, the candidate is exempt from being re-assessed against the following criteria in Unit 226: 1.1, 1.2, 1.3, 1.4, 2.1, 2.3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7.

For the **City & Guilds Level 2 Certificate of Competence in Fork Lift Truck Operations (Masted, materials handling)** learners must be trained and assessed in the units listed below. The qualification will be endorsed to the context of the unit assessed:

City & Guilds unit number	Unit title	GLH
Mandatory unit		
226	Prepare and operate a rough terrain telescopic or masted forklift truck	21
228	Operate a rough terrain telescopic or masted forklift truck for materials handling	3
Certification Module Number	Certification Module Title	
990	Masted, materials handling (Fuel-powered)	
690	Masted, materials handling (Battery-powered)	

If a battery-powered module (eg 690) is being assessed within 12 months of the **equivalent** fuel-powered module (eg 990), or vice versa, the candidate is exempt from being re-assessed against the following criteria: Unit 226 1.1, 1.2, 1.3, 1.4, 2.1, 2.3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7 and Unit 228: 1.1, 1.2, 1.3, 1.4.

For the **City & Guilds Level 2 Certificate of Competence in Fork Lift Truck Operations (Counterbalance)** learners must be trained and assessed in the units listed below. The qualification will be endorsed to the context of the unit assessed:

City & Guilds unit number	Unit title	GLH
Mandatory unit		
227	Prepare and operate a counterbalance forklift truck	21

Certification Module Number	Certification Module Title
956	Counterbalance (Fuel-powered)
656	Counterbalance (Battery-powered)
756	Recertification Counterbalance (Fuel-powered)
766	Recertification Counterbalance (Battery-powered)

If a battery-powered module (eg 656) is being assessed within 12 months of the **equivalent** fuel-powered module (eg 956), or vice versa, the candidate is exempt from being re-assessed against the following criteria in Unit 227: 1.1, 1.2, 1.3, 2.1, 2.3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7.

Total Qualification Time (TQT)

Total Qualification Time (TQT) is the number of notional hours which represents an estimate of the total amount of time that could reasonably be expected for a learner to demonstrate the achievement of the level of attainment necessary for the award of a qualification.

TQT consists of the following two elements:

- 1) the number of hours that an awarding organisation has assigned to a qualification for guided learning
- 2) an estimate of the number of hours a learner will reasonably be likely to spend in preparation, study or any other form of participation in education or training, including assessment, which takes place as directed by but, unlike guided learning, not under the immediate guidance or supervision of a lecturer, supervisor, tutor or other appropriate provider of education or training.

Title and level	GLH	TQT
City & Guilds NPTC Level 2 Certificate of Competence in Fork Lift Truck Operations	21-24	24-28

3 Centre requirements

Approval

Full approval

To offer this qualification, new centres will need to gain both centre and qualification approval. Please refer to the document **Centre Approval Process: Quality Standards** for further information. Please email 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.

Centre staff should familiarise themselves with the structure, content and assessment requirements of the qualification before delivering a course programme.

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. They do not have to be independent, but can be, **and can 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.

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 Personal Protective Equipment (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.

Appeals and equal opportunities

Centres must have their own auditable, appeals procedures. If a candidate is not satisfied with the examination conditions or a candidate feels the opportunity for examination is being denied, the centre manager should, in the first instance, address the problem. If, however, the problem cannot be resolved, City & Guilds will arbitrate, and a principal verifier may be approached to offer independent advice.

All appeals must be clearly documented by the centre manager and made available to the principal verifier or City & Guilds if advice is required.

Should occasions arise when centres are not satisfied with any aspect of the verification process, they should contact the quality assurance manager at City & Guilds NPTC, 5-6 Giltspur Street, London, EC1A 9DE, UK.

Access to the qualification is open to all, irrespective of gender, race, creed or special needs. Subject to health and safety restrictions the centre manager should ensure that no learner is subjected to unfair discrimination on any grounds in relation to access to assessment and to the fairness of the assessment.

Quality assurance

Approved centres must have effective quality assurance systems to ensure optimal 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 all verified and/or moderated assessments undertaken by City & Guilds, 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.

Standards and rigorous quality assurance are maintained by the use of:

- internal quality assurance
- City & Guilds external quality assurance.

To carry out the quality assurance role, Internal Quality Assurers (IQAs) must:

- adhere to the requirements set out in the centre handbook
- have appropriate teaching and vocational knowledge and expertise
- have experience in quality management/internal quality assurance
- hold or be working towards an appropriate teaching/training/assessing qualification
- be familiar with the occupation and technical content covered within the qualification.

External quality assurance for the qualification will be provided by City & Guilds. External Quality Assurers (EQAs) are appointed by City & Guilds to approve centres, and to monitor the assessment and internal quality assurance carried out by centres. External quality assurance is carried out to ensure that assessment is valid and reliable, and that there is good assessment practice in centres.

The role of the EQA is to:

- adhere to the requirements set out in the centre handbook
- provide advice and support to centre staff
- ensure the quality and consistency of assessments and marking/grading within and between centres using systematic sampling
- provide feedback to centres and to City & Guilds.

Learner entry requirements

Candidate must meet minimum age requirements.

Age restrictions

This qualification is approved for learners aged 16 and above.

Access arrangements, reasonable adjustments and special consideration

City & Guilds has considered the design of this qualification and its assessments in order to best support accessibility and inclusion for all learners. City & Guilds understands however that individuals have diverse learning needs and may require reasonable adjustments to fully participate. Reasonable adjustments, such as additional time or alternative formats, may be provided to accommodate learners with disabilities and support fair access to assessment.

Access arrangements are adjustments that allow candidates with disabilities, special educational needs, and temporary injuries to access the assessment and demonstrate their skills and knowledge without changing the demands of the assessment. These arrangements must be made before assessment takes place.

The Equality Act 2010 requires City & Guilds to make reasonable adjustments where a disabled person would be at a substantial disadvantage in undertaking an assessment. 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.

Special consideration is a post examination adjustment to a candidate's mark or grade to reflect temporary injury, illness or other indisposition at the time of the examination/assessment.

Please refer to the documents 'Joint Council for Qualifications (JCQ) Access Arrangements and Reasonable Adjustments', 'JCQ – A Guide to the special consideration process' and 'Access arrangements – When and how applications need to be made to City & Guilds' for more information. All of these are available on the **City & Guilds website**

4 Delivering the qualification

Initial assessment and induction

An initial assessment of each learner should be made before the start of their programme to identify:

- if the learner has any specific training needs
- support and guidance they may need when working towards their qualification.
- any units they have already completed or credit they have accumulated which is relevant to the qualification
- the appropriate type and level of qualification.

We recommend that centres provide an induction programme, so the learner fully understands the requirements of the qualification, their responsibilities as a learner and the responsibilities of the centre. This information can be recorded on a learning contract.

Inclusion and diversity

City & Guilds is committed to improving inclusion and diversity within the way we work and how we deliver our purpose which is to help people and organisations develop the skills they need for growth.

More information and guidance to support centres in supporting inclusion and diversity through the delivery of City & Guilds qualifications can be found here:

[Inclusion and diversity | City & Guilds \(cityandguilds.com\)](#)

Sustainability

City & Guilds are committed to net zero. Our ambition is to reduce our carbon emissions by at least 50% before 2030 and develop environmentally responsible operations to achieve net zero by 2040 or sooner if we can. City & Guilds is committed to supporting qualifications that support our customers to consider sustainability and their environmental footprint.

More information and guidance to support centres in developing sustainable practices through the delivery of City & Guilds qualifications can be found here:

[Our Pathway to Net Zero | City & Guilds \(cityandguilds.com\)](#)

Centres should consider their own carbon footprint when delivering this qualification and consider reasonable and practical ways of delivering this qualification with sustainability in mind. This could include:

- reviewing purchasing and procurement processes (such as buying in bulk to reduce the amount of travel time and energy, considering and investing in the use of components that can be reused, instead of the use of disposable or single use consumables)
- reusing components wherever possible
- waste procedures (ensuring that waste is minimised, recycling of components is in place wherever possible)
- minimising water use and considering options for reuse/salvage as part of activities wherever possible.

Support materials

The following resources are available for this qualification:

Description	How to access
Candidate Pack	
Record of Assessment	<u>www.nptc.org.uk</u>
Assessor Pack (available only to assessors)	

5 Assessment

Assessment of the qualification

Assessment types			
Unit	Title	Assessment method	Where to obtain assessment materials
226	Prepare and operate a rough terrain telescopic or masted forklift truck	Oral examination and practical observation. Centres may use the materials provided by City & Guilds.	www.nptc.org.uk
227	Prepare and operate a counterbalance forklift truck	Oral examination and practical observation. Centres may use the materials provided by City & Guilds.	www.nptc.org.uk
228	Operate a rough terrain telescopic or masted forklift truck for materials handling	Oral examination and practical observation. Centres may use the materials provided by City & Guilds.	www.nptc.org.uk

Assessment strategy

City & Guilds has written the practical observations with oral questioning to use with this qualification; live assessment materials can be downloaded by the assessor via the Assessment Pack from the NPTC website.

Time constraints

The following must be applied to the assessment of this qualification:

- Candidates must finish their assessment within 24 months of date of initial registration.
- Qualification registration is valid for two years.

6 Units

Structure of the units

These units each have the following:

- City & Guilds reference number
- title
- level
- Guided Learning Hours (GLH)
- unit aim
- assessment type
- learning outcomes, which comprised a number of assessment criteria

Guidance for delivery of the units

This qualification comprises a number of **units**. A unit describes what is expected of a competent person in particular aspects of their job.

Each **unit** is divided into **learning outcomes** which describe in further detail the skills and knowledge that a candidate should possess.

Each **learning outcome** has a set of **assessment criteria** (performance and knowledge and understanding) which specify the desired criteria that must be satisfied before an individual can be said to have performed to the agreed standard.

Unit 226

Prepare and operate a rough terrain telescopic or masted forklift truck

Level:	2
GLH:	21
Assessment type:	Practical activities with oral assessment.
Aim:	The aim of this unit is to provide the learner with the knowledge, understanding and skills required to prepare and operate a rough terrain telescopic or masted forklift truck and to industry standards.

Learning outcome

The learner will:

LO1 Know the hazards, risk assessment requirements and legislation for the use of rough terrain telescopic or masted forklift truck (Criteria 1.1-1.4)

Assessment criteria

The learner can:

AC1.1 Carry out a site-specific hazard and risk assessment

AC1.2 Describe the relevant health and safety legislation in relation to forklift truck operations

AC1.3 Describe the relevant legal and safety considerations when operating a forklift truck on or near a public highway

AC1.4 Select and use the appropriate personal protective clothing and equipment

Topic 1.1

The hazards, risks and control measures relating to the site, task and machine:

- slopes
- ground conditions
- contact with moving parts
- manual handling
- overhead obstructions
- Over Head Power Lines (OHPL)
- surface obstructions
- people and/or animals

- ditches/waterways
- hot components
- fuel and oil
- biohazards
- dust/fungal spores
- electrical connections.

Walking the site and verbally reporting:

- 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.

Topic 1.2

The relevance of LOLER:

- The Lifting Operations and Lifting Equipment Regulations (LOLER):
 - lift trucks must have a record of inspection
 - lift trucks must have a certificate of thorough examination.

Relevant pieces of health and safety legislation in relation to the preparation and use of the machine:

- Health and Safety at Work Etc. Act (HASAWA):
 - duties imposed on the employer/employee/others.
- Provision and Use of Work Equipment Regulations (PUWER):
 - machine must be properly maintained according to manufacturer's recommendations
 - vehicles must be fitted with Falling Objects Protection Systems (FOPS) and Roll Over Protection Systems (ROPS).
- Management of Health and Safety at Work Regulations (MHSWR):
 - comply with risk assessments.
- Control of Substances Hazardous to Health (COSHH):
 - fuel handling and protection from contaminants.
- Personal Protective Equipment Regulations (PPE):
 - PPE must be provided, maintained and worn.
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR):
 - certain categories of injuries must be reported.

Additional legal and safety requirements relating to the use of a forklift truck:

- the lift truck is fitted with a restraint system if there is a possibility of overturning
- the Capacity Plate or Safe Working Load (SWL) plate must not be exceeded
- machine used in accordance with HSE guidance PM28 if used with an attached personnel access platform
- operator must be trained and competent
- operator has written authorisation to use the machine
- operator to be within confines of the cab/canopy.

Topic 1.3

Legal and safety considerations relating to the use or movement on or near the public highway or other areas to which the public has access:

- 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.

How to prepare the machine for road use:

- forks folded or covered
- four-wheel drive mode disengaged
- differential lock disengaged (if applicable)
- two-wheel steer mode selected (if applicable)
- boom/mast control locked (if applicable).

Topic 1.4

PPE for forklift truck operations:

- safety boots
- ear defenders
- dust mask
- head protection
- face/eye protection
- hand protection
- non-snag clothing
- any other protection highlighted in the risk assessment.

Learning outcome

The learner will:

LO2 Carry out pre-start checks on a rough terrain telescopic or masted forklift truck (Criteria 2.1-2.3)

Assessment criteria

The learner can:

AC2.1 Identify and explain the function of all instruments and controls

AC2.2 Carry out checks to the forklift truck to ensure that it is safe to use

AC2.3 Explain the factors that can affect the stability of the Forklift truck

Topic 2.1

Safely mounting and dismounting from forklift truck cab using hand and footholds provided (usually facing inwards).

The functions of all instruments and controls on the forklift truck:

- all internal/external controls and instrumentation applicable to the forklift truck.

Information and warning symbols:

- interpretation of information and warning symbols
- interpretation of decals.

Safe load indicator/warning device (if fitted)

Topic 2.2a – Fuel- and battery-powered machines

Carry out inspection of forklift truck prior to use to establish that it complies with statutory legislation, and it is safe to use:

- horn working
- reversing alert/warning system
- all lights working
- cab glass undamaged and clean
- wipers in working order
- mirrors clean and undamaged
- indicators clearly visible and undamaged
- operator presence controls (OPCs)
- the Capacity Plate or Safe Working Load (SWL) plate must be in place and SWL must not be exceeded
- all moving parts, belts, pulleys and chains are guarded
- telescopic components in good working order
- condition of wear pads
- pallet forks are a matched pair, compatible with machine, in good condition and secure
- wheel nuts tight and secure
- correct tyre pressures
- tyres free from excessive wear and damage
- lubrication sites identified
- absence of oil leaks
- ram safety stops available
- isolation devices working where fitted and correctly deployed (such as cab switch isolator for third service)
- lift chains undamaged (if masted machine)
- condition of mast rollers (if masted machine).

Topic 2.2b – Fuel-powered machines only

Daily pre-start checks, referring to manual if required:

- all pre-start checks applicable to the forklift truck being used - as specified in the manual.

Topic 2.2c – Battery-powered machines only

Battery power unit safety requirements:

- battery
- battery charger.

Safety precautions when working with battery-powered machines:

- inspection of cables and plugs
- clean air intake and battery connections
- no sparks or naked flames during battery charging
- away from a heat source
- battery to be disconnected prior to maintenance
- check on/off switch.

Topic 2.2d – Battery-powered machines only

Connect and disconnect a battery from charge:

Connection:

- remove any covers
- disconnect power lead from the battery
- connect charging cable
- check all connections
- switch on the power.

Disconnection:

- switch off the power
- remove the charging cable
- reconnect the power lead from the battery to the machine
- check all connections
- secure all covers.

Topic 2.2e – Battery-powered machines only

How to dispose of a battery:

- do not burn
- do not open
- not in general refuse
- check local authority disposal requirements.

Topic 2.2f – Fuel-powered and battery-powered machines

Adjustments to ensure comfort and safety:

- mirrors adjusted for clear view
- steering wheel adjusted to suit operator
- seat adjusted to suit operator
- condition and function of seatbelt.

Safe starting and stopping procedure:

- controls in neutral
- correct starting technique demonstrated
- SAFE STOP procedures followed.

All hydraulic functions checked for safe operation and absence of leaks:

- hydraulic functions fully tested to ensure correct, smooth operation and absence of leaks before lifting any loads.

Parking brake effectiveness:

- any suitable method of checking parking brake.

Driving short distance at normal operational speed to check safe operation of brakes:

- all round observation before moving off
- brakes checked by driving short distance on level, smooth ground and applying the foot brake.

Topic 2.3

Causes of sideways (lateral) instability:

- exceeding safe working load
- turning at speed
- operating with a soft tyre
- uneven ground
- turning on a slope
- carrying load too high
- load not centrally placed
- articulation under load
- 'live' loads.

Causes of fore and aft (longitudinal) instability:

- exceeding safe working load
- forks not fully inserted
- aggressive braking
- travelling forward down a slope when loaded
- incorrect use of tilt at high level loading
- boom not fully retracted
- 'live' loads.

The term 'load centre' and its importance when loading (information on load centres and capacities specific to the machine to be obtained from the operator's manual):

- load centre is 'the distance from the centre of the load to the front vertical face of the fork
- if the load centre is greater (ie an extended load) the lifting capacity is reduced
- de-rating if using alternate attachments, extended loads or undercutting.

Factors affecting safe loading:

- slopes and ground conditions
- stability of loads
- overall weight and weight distribution of load
- Safe Working Load (SWL) of lift truck
- carrying extended loads
- using alternative attachments
- undercutting
- 'live' loads.

Learning outcome

The learner will:

LO3 Operate a rough terrain telescopic or masted forklift truck (Criteria 3.1-3.7)

Assessment criteria

The learner can:

AC3.1 Prepare to move the load

AC3.2 Set the fork width to ensure stability of the load

AC3.3 Operate the forklift

AC3.4 Pick up, travel with and place loads

AC3.5 Park and secure the machine

AC3.6 Describe how to clean the forklift truck and equipment after use and the reasons for cleaning

AC3.7 Describe post-operational checks

Topic 3.1

Condition and suitability of load:

- assess condition of load
- assess weight of load
- assess security and condition of load
- estimate load centre.

Topic 3.2

Carry out adjustments to the forks:

- fork width adjusted to suit load
- safe techniques used.

Personal safety considerations when manually adjusting fork width:

- avoid manual handling where possible, use safe manual handling techniques.

Topic 3.3

Operate the forklift truck:

- operate controls in correct sequence according to manufacturer's handbook/operator's manual
- ensure all around observation
- use correct 'move off' procedure as outlined in manufacturer's handbook/operator's manual
- travel with forks at appropriate height (as determined by individual risk assessment)
- use horn when approaching corners, blind bends or entrances.

Topic 3.4

Use a machine to pick up a load:

- apply parking brake
- transmission in neutral when lifting and lowering - apart from minor adjustments on rough terrain
- insert forks cleanly without damaging or moving the pallet/stillage/box
- use 'undercutting' technique as necessary
- use of side-shift (if fitted).

Use a machine to travel with a load:

- maintain all-round observation
- carry load at minimum height without scraping
- drive at suitable speed
- accurate negotiation of course
- ensure operator remains inside frame/cab at all times.

Use a machine to move and place loads in specified positions:

- moving a load which should be at least $\frac{1}{2}$ of the maximum lifting capacity of the truck
- positioning loads at ground level
- positioning loads at operator's eye level
- positioning loads at least $\frac{1}{2}$ of the maximum lift height of the truck
- stacking in front of a vertical face
- stacking alongside similar loads
- use of side-shift (if fitted)
- load placed safely
- insert/withdraw forks without moving or damaging the load.

Topic 3.5

Park forklift truck in specified area:

- move to secure site
- safe stop procedure followed
- dismount from the machine safely using correct hand and footholds
- lock cab (if applicable)
- isolate battery (if applicable).

Topic 3.6

Reasons for regularly cleaning the forklift truck:

- prevents personal contamination
- prevents corrosion
- prevents soiling of roads
- makes visual inspection for damage possible
- facilitates maintenance and adjustments.

Methods of cleaning the forklift truck and attachments:

- a brush
- compressed/blown air
- water/pressure washer.

PPE required for cleaning operations:

- eye/face protection
- safety footwear
- overall/coverall
- hand protection
- dust mask.

Topic 3.7

Reasons for inspecting the forklift truck after use:

- 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.

Unit 227

Prepare and operate a counterbalance forklift truck

Level:	2
GLH:	21
Assessment type:	Practical activities with oral assessment.
Aim:	The aim of this unit is to provide the learner with the knowledge, understanding and skills required to prepare and operate a counterbalance truck and to industry standards.

Learning outcomes

The learner will:

LO1 Know the hazards, risk assessment requirements and legislation for the use of counterbalance forklift truck (Criteria 1.1-1.3)

Assessment criteria

The learner can:

AC1.1 Carry out a site-specific hazard and risk assessment

AC1.2 Describe the relevant health and safety legislation in relation to forklift truck operations

AC1.3 Select and use the appropriate personal protective clothing and equipment

Topic 1.1

The hazards, risks and control measures relating to the site, task and machine:

- slopes
- ground conditions
- contact with moving parts
- manual handling
- overhead obstructions
- Over Head Power Lines (OHPL)
- surface obstructions
- people and/or animals
- ditches/waterways
- hot components
- fuel and oil
- biohazards
- dust/fungal spores.
- electrical connections.

Walking the site and verbally reporting:

- 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.

Topic 1.2

The relevance of LOLER:

- The Lifting Operations and Lifting Equipment Regulations (LOLER):
 - lift trucks must have a record of inspection
 - lift trucks must have a certificate of thorough examination.

Relevant pieces of health and safety legislation in relation to the preparation and use of the machine:

- Health and Safety at Work Etc. Act (HASAWA):
 - duties imposed on the employer/employee/others.
- Provision and Use of Work Equipment Regulations (PUWER):
 - machine must be properly maintained according to manufacturer's recommendations.
 - vehicles must be fitted with Falling Objects Protection Systems (FOPS) and Roll Over Protection Systems (ROPS).
- Management of Health and Safety at Work Regulations (MHSWR):
 - comply with risk assessments.
- Control of Substances Hazardous to Health (COSHH):
 - fuel handling and protection from contaminants.
- Personal Protective Equipment Regulations (PPE):
 - PPE must be provided, maintained and worn.
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR):
 - certain categories of injuries must be reported.

Additional legal and safety requirements relating to the use of a forklift truck:

- the lift truck is fitted with a restraint system if there is a possibility of overturning
- the capacity plate or Safe Working Load (SWL) plate must not be exceeded
- machine used in accordance with HSE guidance PM28 if used with an attached personnel access platform
- operator must be trained and competent
- operator has written authorisation to use the machine
- operator to be within confines of the cab/canopy.

Topic 1.3

PPE for forklift truck operations:

- safety boots
- ear defenders
- dust mask
- head protection
- face/eye protection
- hand protection
- non-snag clothing
- any other protection highlighted in the risk assessment.

Learning outcome

The learner will:

LO2 Carry out pre-start checks on a counterbalance forklift truck (Criteria 2.1-2.3)

Assessment criteria

The learner can:

AC2.1 Identify and explain the function of all instruments and controls

AC2.2 Carry out checks to the forklift truck to ensure that it is safe to use

AC2.3 Explain the factors that can affect the stability of the forklift truck

Topic 2.1

Safely mounting and dismounting from forklift truck cab using hand and footholds provided (usually facing inwards).

The functions of all instruments and controls on the forklift truck:

- all internal/external controls and instrumentation applicable to the forklift truck.

Information and warning symbols:

- interpretation of information and warning symbols
- interpretation of decals.

Safe load indicator/warning device (if fitted).

Topic 2.2a – Fuel- and battery-powered machines

Carry out inspection of forklift truck prior to use to establish that it complies with statutory legislation, and it is safe to use:

- horn working
- reversing alert/warning system
- all lights working
- cab glass undamaged and clean
- wipers in working order
- mirrors clean and undamaged
- indicators clearly visible and undamaged
- operator presence controls (OPCs)
- the capacity plate or Safe Working Load (SWL) plate must be in place and SWL must not be exceeded
- all moving parts, belts, pulleys and chains are guarded
- hydraulic pipework (condition and routing)
- pallet forks are a matched pair, compatible with machine, in good condition and secure
- wheel nuts tight and secure
- correct tyre pressures
- tyres free from excessive wear and damage
- lubrication sites identified

- isolation devices working where fitted and correctly deployed (such as cab switch isolator for third service)
- lift chains undamaged
- condition of mast rollers.

Topic 2.2b – Fuel-powered machines only

Daily pre-start checks, referring to manual if required:

- all pre-start checks applicable to the forklift truck being used as specified in the manual.

Topic 2.2c – Battery-powered machines only

Battery power unit safety requirements:

- battery
- battery charger.

Safety precautions when working with battery-powered machines:

- inspection of cables and plugs
- clean air intake and battery connections
- no sparks or naked flames during battery charging
- away from a heat source
- battery to be disconnected prior to maintenance
- check on/off switch.

Topic 2.2d – Battery-powered machines only

Connect and disconnect a battery from charge:

Connection:

- remove any covers
- disconnect power lead from the battery
- connect charging cable
- check all connections
- switch on the power.

Disconnection:

- switch off the power
- remove the charging cable
- reconnect the power lead from the battery to the machine
- check all connections
- secure all covers.

Topic 2.2e – Battery-powered machines only

How to dispose of a battery:

- do not burn
- do not open
- not in general refuse
- check local authority disposal requirements

Topic 2.2f – Fuel- and battery-powered machines

Adjustments to ensure comfort and safety:

- mirrors adjusted for clear view
- steering wheel adjusted to suit operator
- seat adjusted to suit operator
- condition and function of seatbelt.

Safe starting and stopping procedure:

- controls in neutral
- correct starting technique demonstrated
- safe stop procedures followed.

All hydraulic functions checked for safe operation and absence of leaks:

- hydraulic functions fully tested to ensure correct, smooth operation and absence of leaks before lifting any loads.

Parking brake effectiveness:

- any suitable method of checking parking brake.

Driving short distance at normal operational speed to check safe operation of brakes:

- all round observation before moving off
- brakes checked by driving short distance on level, smooth ground and applying the foot brake.

Topic 2.3

Causes of sideways (lateral) instability:

- exceeding safe working load
- turning at speed
- operating with a soft tyre
- uneven ground
- turning on a slope
- carrying load too high
- load not centrally placed
- articulation under load
- 'live' loads.

Causes of fore and aft (longitudinal) instability:

- exceeding safe working load
- forks not fully inserted
- aggressive braking
- travelling forward down a slope when loaded
- incorrect use of tilt at high level loading
- boom not fully retracted
- 'live' loads.

The term 'load centre' and its importance when loading (information on load centres and capacities specific to the machine to be obtained from the operator's manual):

- load centre is the distance from the centre of the load to the front vertical face of the fork

- if the load centre is greater (ie an extended load) the lifting capacity is reduced
- de-rating if using alternate attachments, extended loads or undercutting

Factors affecting safe loading:

- slopes and ground conditions
- stability of loads
- overall weight and weight distribution of load
- Safe Working Load (SWL) of lift truck
- carrying extended loads
- using alternative attachments
- undercutting
- 'live' loads.

Learning outcome

The learner will:

LO3 Operate a counterbalance forklift truck (Criteria 3.1-3.7)

Assessment criteria

The learner can:

AC3.1 Prepare to move the load

AC3.2 Set the fork width to ensure stability of the load

AC3.3 Operate the forklift

AC3.4 Pick up, travel with and place loads

AC3.5 Park and secure the machine

AC3.6 Describe how to clean the forklift truck and equipment after use and the reasons for cleaning

AC3.7 Describe post-operational checks

Topic 3.1

Condition and suitability of load:

- assess condition of load
- assess weight of load
- assess security and condition of load
- estimate load centre.

Topic 3.2

Carry out adjustments to the forks:

- fork width adjusted to suit load
- safe techniques used.

Personal safety considerations when manually adjusting fork width:

- avoid manual handling where possible, use safe manual handling techniques.

Topic 3.3

Operate the forklift truck:

- operate controls in correct sequence according to manufacturer's handbook/operator's manual
- ensure all around observation
- use correct 'move off' procedure as outlined in manufacturer's handbook/operator's manual
- travel with forks at appropriate height (as determined by individual risk assessment)
- use horn when approaching corners, blind bends or entrances.

Topic 3.4

Use a machine to pick up a load:

- apply parking brake
- transmission in neutral when lifting and lowering - apart from minor adjustments on rough terrain
- insert forks cleanly without damaging or moving the pallet/stillage/box
- use 'undercutting' technique as necessary
- use of side-shift (if fitted).

Use a machine to travel with a load:

- maintain all-round observation
- carry load at minimum height without scraping
- drive at suitable speed
- accurate negotiation of course
- ensure operator remains inside frame/cab at all times.

Use a machine to move and place loads in specified positions:

- moving a load which should be at least $\frac{1}{2}$ of the maximum lifting capacity of the truck
- positioning loads at ground level
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- positioning loads at least $\frac{1}{2}$ of the maximum lift height of the truck
- stacking in front of a vertical face
- stacking alongside similar loads
- use of side-shift (if fitted)
- load placed safely
- insert/withdraw forks without moving or damaging the load.

Topic 3.5

Park forklift truck in specified area:

- move to secure site
- safe stop procedure followed
- dismount from the machine safely using correct hand and footholds
- lock cab (if applicable)
- isolate battery (if applicable).

Topic 3.6

Reasons for regularly cleaning the forklift truck:

- prevents personal contamination
- prevents corrosion
- prevents soiling of roads
- makes visual inspection for damage possible
- facilitates maintenance and adjustments.

Methods of cleaning the forklift truck and attachments:

- a brush
- compressed/blown air
- water/pressure washer.

Personal Protective Equipment (PPE) required for cleaning operations:

- eye/face protection
- safety footwear
- overall/coverall
- hand protection
- dust mask.

Topic 3.7

Reasons for inspecting the forklift truck after use:

- 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.

Unit 228

Operate a rough terrain telescopic or masted forklift truck for materials handling

Level:	2
GLH:	3
Assessment type:	Practical activities with oral assessment.
Aim:	The aim of this unit is to provide the learner with the knowledge, understanding and skills required to prepare and operate a rough terrain telescopic or masted forklift truck for materials handling safely and to industry standards.

Learning outcome

The learner will:

LO1 Operate a forklift truck for material handling (Criteria 1.1-1.4)

Assessment criteria

The learner can:

AC1.1 Describe the safe use of appropriate attachments

AC1.2 Fit and secure an attachment

AC1.3 Carry out an operation using the attachment

AC1.4 Remove attachment and re-attach forks

Topic 1.1

Factors to consider when using alternative attachments:

- compatibility of attachment
- hitch type
- hydraulic connections
- safe working load of attachment
- effect on safe working load of machine.

Suitable attachments may include bucket, bale grab, silage fork, rotator/tippler, and grain pusher.

Topic 1.2

Remove pallet forks and fit an attachment:

- attachment checked for condition and suitability
- attachment fitted safely
- accurate driving
- correct use of controls
- attachment secured correctly
- isolation controls used (if applicable)
- connect hydraulic services (if applicable).

Topic 1.3

Use the attachment to carry out an operation:

- drive at a suitable speed without sudden acceleration or braking
- maintain all-round observation
- accurate driving and operation
- ensure operator remains inside frame/cab at all times
- use traction aids on rough terrain if required
- operation carried out as designated by task specification
- operation carried out safely using appropriate controls according to machine type.

Topic 1.4

Remove attachment and re-attach pallet forks to machine:

- move to appropriate site
- disconnect hydraulic services (if applicable)
- remove attachment in a safe manner
- re-attach pallet forks.

Supporting information

Evidence requirements

One-to-one practical assessment with oral questioning by an NPTC City & Guilds approved assessor.

Unit guidance

Candidates must successfully achieve all assessment activities in their chosen unit(s).

Validation of equipment

A manufacturer's instruction book or other operator's manual should be available. It is permissible for the candidate to use this during formal assessment.

All equipment being used for this assessment must comply with the relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER).

Vehicles must comply with Department of Transport and Road Traffic Acts where relevant.

Any appropriate item of machinery complying with legal requirements is acceptable for the assessment, provided it is suitably equipped for **all** assessment activities to be carried out.

Safe practice

Appropriate Personal Protective Equipment (PPE) must be worn at all times.

The assessor must ensure that a site-specific risk assessment is carried out.

All equipment must be operated in such a way that the candidate, assessor, other persons, or other equipment are not endangered.

All ancillary equipment, when detached, must be safely parked.

Failure to operate safely and comply with these requirements will result in the candidate not meeting the required standard.

Warning signs stating that an assessment is in progress should be available.

The assessor may stop the assessment on the grounds of safety at any time at his/her discretion.

Before any assessments take place, the assessor and candidate should be aware of any local or national issues to prevent breach of security, safety and any cross contamination or damage to the local environment.

A breach of health and safety that puts any person at risk during the assessment process will result in the assessment being terminated and the candidate not meeting the required standard.

Candidates who undertake this assessment and have met the requirements are reminded of their legal obligation to receive/undertake appropriate additional training in the use of any equipment that differs from that used during the assessment, but which they are nevertheless qualified to use.

Suggested learning resources

Additional information may be sought from the relevant manufacturer's operator manuals or any other appropriate training or safety publication.

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 **Centre document library** on **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 Handbook: 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

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**.

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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.

We work with Governments, employers, training providers, colleges and industry stakeholders to design and deliver high-quality training, qualifications, assessments and credentials that lead to meaningful career progression. We understand the life changing link between skills development, social mobility and success. Our solutions span critical sectors including construction, engineering, transport, energy and electrical, serving over 1 million learners annually.

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