



QUALIFICATION SPECIFICATION

**ECITB Diploma in Moving Engineering Construction
Loads at SCQF Level 6**

SQA Accreditation group award number R833 04

Contents

1.	Introduction.....	3
	Objective and overview.....	3
	Moving Loads occupations.....	3
	Entry requirements.....	4
	Language.....	4
	Achievement.....	4
	Credit and level.....	5
	Equity, diversity and inclusion.....	7
	Progression.....	7
2.	Qualification units and scope of assessment.....	8
2.1	Unit features.....	8
2.2	Underpinning knowledge and skills.....	8
2.3	Further information.....	9
2.4	Units.....	10
	ECITBCO-S1 Contribute to effective working relationships in engineering construction...10	
	ECITBCO-S2 Work safely and minimise risk in engineering construction.....13	
	ECITBCO-S4 Work with environmental sustainability in mind.....17	
	ECITBCO-S5 Interpret and follow documentation and procedures.....19	
	ECITBCO-S6 Use digital technology and information effectively and securely.....23	
	ML-01S Determine technical and resource requirements to achieve moving lifting and positioning objectives.....26	
	ML-02S Prepare loads for moving, lifting and positioning.....31	
	ML-03S Move loads over the approved route.....36	
	ML-04S Position and install construction elements and assemblies.....40	
	ML-05S Check the construction elements and assemblies are installed to specification ..45	
	ML-06S Dismantle construction elements and assemblies for movement.....49	
	ML-07S Undertake complex movement of loads.....55	

1. Introduction

Objective and overview

The Engineering Construction Industry Training Board (ECITB) is the employer-led skills, standards, and qualifications body for the development of the engineering construction workforce of Great Britain. An arms-length body of the UK Government, the ECITB reports directly to the Department for Education.

The ECITB Awarding Body for accredited engineering construction qualifications is part of the industry training board. Our qualifications certify knowledge and competence across craft and technical disciplines. They improve quality and standards for the industry, helping engineering construction companies to stay competitive.

This document is for use by Approved Centres and their candidates. It is also used by ECITB's External Quality Assurers. It may also be of interest to employers and training providers.

The ECITB Diploma in Moving Engineering Construction Loads at SCQF Level 6 is a work-based qualification based on the National Occupational Standards (NOS) for the Engineering Construction industry. The qualification comprises both knowledge and competence. NOS are developed by employers and professional bodies in conjunction with the ECITB Standard Setting Organisation and describe what employers mean by occupational competence within a particular job role.

The objectives of this qualification are to:

Prepare candidates for employment in the moving of engineering construction loads industry.

Support candidates working in a role in moving loads.

Enable candidates to progress to higher levels, including opportunities to move to supervisory and managerial roles.

Moving Loads occupations

Engineering construction rigging is a vital role in the Engineering Construction Industry, with riggers working within strictly defined processes and procedures to exacting standards to achieve their activities. This often involves working on major infrastructure projects in various sectors such as the power generation sector; oil and gas refining; nuclear waste reprocessing; the processing and production of chemicals; pharmaceuticals; human and animal food; cosmetics; petrochemicals; sewerage, steel milling, the exploration and exploitation of oil and gas, and the erection and dismantling/decommissioning of steel structures, and engineering construction plant of varying sizes and complexity.

Riggers often work in hazardous environments, which can include working at height, over water and in confined spaces. Riggers must be able to work autonomously and as part of a team ensuring compliance with health, safety and environmental processes and procedures. This can involve working with other engineering construction occupations such as maintenance technicians, platers, pipefitters and welders.

Riggers work at craft person level and are overseen by a supervisor. They are responsible for the quality of their own work; possibly that of others, and for ensuring all work is completed safely and meets stakeholder quality, time and budgetary requirements. Riggers generally work on-site on various types of plant and equipment depending on their employer's given sector.

Rigging refers to the lifting, moving and positioning of extremely large or heavy objects that which are beyond the reasonable scope of manual handling and outside the reach of

material handling equipment. The rigging activities are specialised and require detailed planning and control of all the elements due to the inherent range of hazards, and therefore require extensive operator training. Rigging operations often require teams of riggers working cohesively in order to successfully and safely complete the load movement activities successfully and safely, often in or around live working plants or during routine maintenance and overhaul of plant and equipment. The moving and lifting equipment is diverse and can include specialist equipment such as skids and rollers as well as numerous types of winches, hoists and cranes of various sizes and design.

For the purpose of this qualification, movement is defined as the relocating of loads which involves cross hauling, vertical raising and lowering or suspension of load. This may be achieved through the use of manually controlled or automated equipment.

Entry requirements

There are no mandatory entry requirements for this qualification. The qualification is open to any candidate who the Approved Centre believes can reach the assessment requirements set out within this document. A candidate must have a sound grasp of the English language and mathematics to be able to follow instructions as well as complete the learning and assessment required for this qualification. The Approved Centre will work with prospective candidates and, where appropriate, employers, to determine a candidate's suitability for the qualification.

Language

This qualification is available in English only. For candidates who use English as a second language, an Approved Centre must satisfy itself prior to registering a candidate that the candidate's level of English is sufficient to be able to access the learning and undertake the assessment at the appropriate level, and to be able to interact with others and work safely.

Achievement

This qualification consists of 12 mandatory units. A candidate must successfully meet the requirements in each of the units in order to attain this qualification. This document details the learning outcomes and assessment criteria that a candidate must meet in order to demonstrate the acquisition of the knowledge and skills needed to be awarded an ECITB Diploma in Moving Engineering Construction Loads at SCQF Level 6. Mandatory observation of the candidate by an Approved Centre assessor is required to achieve this qualification.

Typical engineering construction structures, plant and equipment for the assessment of each unit in this qualification are listed in Annex 1.

The contents of each unit within the qualification interrelate and the AB issues credit certificates for completion of stand-alone units, on request from the Approved Centre. The qualification contains the following units:

ECITB unit number	SQA Accreditation unit number	Unit title	SCQF level	SCQF Credit
ECITBCO-S1	UT09 04	Contribute to effective working relationships in engineering construction	5	6
ECITBCO-S2	UT55 04	Work safely and minimise risk in engineering construction	6	10
ECITBCO-S4	UT56 04	Work with environmental sustainability in mind	6	6
ECITBCO-S5	UT23 04	Interpret and follow documentation and procedures	6	6

ECITBCO-S6	UT54 04	Use digital technology and information effectively and securely	5	2
IPS-PF02S	UT10 04	Assemble pipework components to meet required specification in engineering construction	6	26
IPS-PF03S	UT34 04	Position and install pipework and related plant, equipment and systems in engineering construction	7	20
IPS-PF06S	UT28 04	Test the performance and condition of pipework in engineering construction	6	9
IPS-PF07S	UT29 04	Form pipework materials by applied pressure to specification in engineering construction	6	17
IPS-PF08S	UT05 04	Dismantle pipework components and assemblies in engineering construction	7	8
IPS-PF09S	UT18 04	Shape pipework components by material removal using hand tools in engineering construction	6	17
IPS-PF10S	UT53 04	Mark out to the required specification in engineering construction	6	14

Credit and level

Credit is a value attached to each unit and each qualification, based on the amount of time it would take the average candidate to achieve and demonstrate the learning outcomes of a qualification. In practice, individual candidate requirements and individual delivery methods mean there will be variation in the actual time taken to complete a qualification. Credit are estimates, based on consultation with industry practitioners, supervisors, and assessors. One credit point is equivalent to 10 hours. Credit includes:

- Formal input, e.g. contact time with tutor, acquisition of knowledge/understanding. Off the job time.
- Additional activities, e.g. developing practice, reflection, research/study time. On the job time.
- Assessment, e.g. planning, completion of assessment tasks.

This qualification has 133 credit points.

The credit points allow candidates, learning providers and employers to compare the size of different qualifications.

In some instances, it may be possible to transfer SCQF credit points to and from other learning programmes. This will enable a candidate to include evidence of prior knowledge and competence and to ensure they do not repeat learning previously undertaken.

Universities, colleges, SQA Accreditation and other awarding bodies decide how many of the credit points received from previous learning can be transferred into their programmes. In all cases of credit transfer, it would be the decision of the accepting learning provider as to how many credit points could be transferred. Please refer to the *ECITB Recognition of Prior Learning Policy and Procedures*.

Time limits on the process of credit accumulation or exemptions are set out for each unit within the qualification structure.

This qualification is at SCQF Level 6. The SCQF descriptor for Level 6 is:

<p>Characteristic 1: Knowledge and understanding</p>
<p>Demonstrate and/or work with:</p> <p>An appreciation of the body of knowledge that constitutes a subject/discipline/sector.</p> <p>A range of knowledge, facts, theories, ideas, properties, materials, terminology, practices, and techniques about, and associated with, a subject/discipline/sector.</p> <p>Relating the subject/discipline/sector to a range of practical and/or commonplace applications.</p>
<p>Characteristic 2: Practice: Applied knowledge, skills and understanding</p>
<p>Apply knowledge, skills and understanding:</p> <p>In known, practical contexts.</p> <p>In using some of the basic, routine practices, techniques and/or materials associated with the subject/discipline/sector.</p> <p>In exercising these in routine contexts that may have non-routine elements.</p> <p>In planning how skills will be used to address set situations and/or problems and adapt these as necessary.</p>
<p>Characteristic 3: Generic cognitive skills</p>
<p>Obtain, organise, and use factual, theoretical and/or hypothetical information in problem solving.</p> <p>Make generalisations and predictions.</p> <p>Draw conclusions and suggest solutions.</p>
<p>Characteristic 4: Communication, ICT, and numeracy skills</p>
<p>Use a wide range of skills, for example:</p> <p>Produce and respond to detailed and relatively complex written and oral communication in both familiar and unfamiliar contexts.</p> <p>Select and use standard ICT applications to process, obtain and combine information.</p> <p>Use a wide range of numerical and graphical data in routine contexts which may have non-routine elements.</p>
<p>Characteristic 5: Autonomy, accountability and working with others</p>
<p>Take responsibility for carrying out a range of activities where the overall goal is clear, under non-directive supervision.</p> <p>Exercise some supervisory responsibility for the work of others and lead established teams in the implementation of routine work within a defined and supervised structure.</p> <p>Manage limited resources within defined and supervised areas of work.</p> <p>Take account of roles and responsibilities related to the tasks being carried out and take a significant role in the evaluation of work and the improvement of practices and processes.</p>

Equity, diversity and inclusion

We have designed this qualification and its assessments to enable fair access to all candidates as far as reasonably possible, while taking industry requirements into consideration, e.g. health and safety.

You may wish to refer to our *Equal Opportunities Policy* and the *Reasonable Adjustments and Special Considerations Policy and Procedure* that are published on the ECITB website.

If you would like to discuss arrangements for reasonable adjustments, please contact us at qualifications@ecitb.org.uk.

Progression

Completing this qualification can lead to a range of further career options. Those who wish to stay in engineering construction can develop their skills further, or progress through supervision to senior positions such as Construction Manager. Individuals can progress through additional qualifications and apprenticeships or into supporting engineering functions such as technical leadership, procurement, quality assurance, project management or project controls.

2. Qualification units and scope of assessment

2.1 Unit features

This qualification consists of 12 mandatory units. Candidates must attain all the learning outcomes in each unit to gain a Pass in the qualification. Candidates attain a learning outcome by meeting each of the assessment criteria linked to the learning outcome at the appropriate standard. The units in this specification show the assessment criteria that a candidate must meet to attain the learning outcomes.

The qualification grade available is Pass.

Each unit has the following sections:

ECITB unit number

The unique unit code that identifies the unit on ECITB's system.

SQA Accreditation unit number

The unique unit code that the regulator (SQA Accreditation) uses to identify the unit.

Unit title

The name of the unit, which reflects the content of the unit.

SCQF level

These levels measure the degree of challenge posed by the qualification compared to other qualifications. The levels are determined by using the SCQF and EQF level descriptors.

Credit value

The credit value represents the learning time being defined as the time taken by candidates at the level of the unit, on average, to complete the learning outcomes of the unit to the standard determined by the assessment criteria.

Unit aim

A summary of what the unit enables the candidate to do.

Learning outcomes

What a candidate will know, understand and/or be able to do upon attainment of the unit. Each learning outcome starts with the letters LO.

Assessment criteria

The requirements a candidate is expected to meet to demonstrate the attainment of the related learning outcome. Each assessment criterion starts with the letter K if it relates to knowledge or understanding and with the letter S if it relates to skills. Each assessment criterion starts with a command verb which instructs the candidate in what to do.

Assessment

This section outlines how the unit will be assessed.

Standards

The National Occupational Standard(s) that the unit is mapped to.

2.2 Underpinning knowledge and skills

Units ECITBCO-S1 to ECITBCO-S6 detail the factual, procedural and theoretical knowledge that the candidate must acquire and also demonstrate on plant, equipment and systems of their selected discipline:

- Relevant national and industry health, safety and environmental standards and legislation and those relevant to the specific disciplines, as appropriate.
- Site safety responsibilities, own and others including: first aid procedures, evacuation procedures and contingency reporting.
- Types and effects of hazards, safety assessment methods and techniques and how to minimise associated risks.
- Relationships: importance of understanding of work relationship problems.
- Lines of communication, reporting lines and levels of responsibility in the workplace.

- The importance of ethical working and the sustainable use of resources including: codes of conduct, minimising the impact of work on the environment.
- The importance of questioning and demonstrating initiative in day-to-day problem solving.
- Procedures and related documentation and responsibility for reporting and following procedures.
- Preparation and reinstatement of the work area including: preparing, checking and handling material; types of equipment and the related care and control procedures; storing and disposing of material; handing over plant and equipment.

2.3 Structures, plant and equipment specific knowledge and skills

Units ML-01S to ML-07S are discipline specific and the candidate must demonstrate their application of knowledge and skills on structures, plant and equipment.

The candidate is required to effectively demonstrate the theoretical, factual and procedural knowledge and practical skills of the following units that comprise the qualification in accordance with the stated assessment criteria and scope of assessment provided in this document:

ECITBCO-S1	Contribute to effective working relationships in engineering construction
ECITBCO-S2	Work safely and minimise risk in engineering construction
ECITBCO-S4	Work with environmental sustainability in mind
ECITBCO-S5	Interpret and follow documentation and procedures
ECITBCO-S6	Use digital technology and information effectively and securely
ML-01S	Determine technical and resource requirements to achieve moving lifting and positioning objectives
ML-02S	Prepare loads for moving, lifting and positioning
ML-03S	Move loads over the approved route
ML-04S	Position and install construction elements and assemblies
ML-05S	Check the construction elements and assemblies are installed to specification
ML-06S	Dismantle construction elements or assemblies for movement
ML-07S	Undertake complex movement of loads

2.3 Further information

For further information either visit the ECITB website or contact the ECITB Awarding Body:

Office F15, Kings House Business Centre, Home Park Estate
 Station Road, Kings Langley, WD4 8LZ
 Email: Qualifications@ecitb.org.uk
 Website: www.ecitb.org.uk

2.4 Units

ECITB unit:	ECITBCO-S1 Contribute to effective working relationships in engineering construction
SQA Accreditation unit code: UT09 04	
SCQF level: 5 Credit value: 6	
<p>Unit purpose and aim: This unit has been designed to assess learner competence in being able to:</p> <ol style="list-style-type: none"> 1. Establish and maintain productive working relationships 2. Deal with disagreements in an amicable and constructive way so that good relationships are maintained 3. Keep others informed about work plans or activities which affect them 4. Seek assistance from others in a polite and courteous way without causing undue disruption to normal work activities 5. Respond in a timely and positive way when others ask for help or information 	
<p>Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)</p> <p>Derived from ECITB/E CRS 11.04 (CO 1)</p>	

Learning outcomes	Assessment criteria
The candidate will:	The candidate can:
LO1 Understand lines of communication and responsibilities	K1.1 Explain the individual's responsibilities and the responsibilities of others within the work location
	K1.2 Describe the lines of communication that exist within the individual's working environment and explain the agreed procedure for passing information

Learning outcomes	Assessment criteria
The candidate will:	The candidate can:
LO2 Understand the importance of creating and maintaining working relationships	K2.1 Describe the individual's responsibilities for creating and maintaining working relationships and explain why it is important to do so
LO3 Understand problems affecting relationships	K3.1 Describe different problems that can affect relationships, and the actions that can be taken to deal with specific difficulties
LO4 Establish and maintain productive working relationships	S4.1 Develop working relationships with different people in the work environment such as: those for whom they are responsible, those to whom they are responsible, clients, colleagues, other tradespersons, suppliers, security/safety personnel
LO5 Deal with disagreements in an amicable and constructive way so that effective relationships are maintained	S5.1 Respond in a positive way when others ask for help or information
	S5.2 Treat everyone fairly and with respect and support the creation of a welcoming and inclusive environment for everyone
	S5.3 Maintain effective relationships by: <ul style="list-style-type: none"> a. Resolving disagreements in a constructive and objective manner b. Escalating if needed c. Reporting, in accordance with procedures
LO6 Seek assistance from others in a polite and courteous way without causing undue disruption to normal working activities	S6.1 Maintain effective relationships by seeking assistance from others in a polite and courteous manner
LO7 Respond in a timely and positive way when others ask for help or information	S7.1 Follow relevant work or professional codes of conduct, as appropriate for their role
	S7.2 Requests for help and information to identify exactly what is required
	S7.3 Resolve problems within the limits of their authority as they arise

Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	<p>Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from work-based activities on suitable engineering construction industry sites or realistic workplace environment. Such methods may include discussions about product evidence and questioning.</p> <p>Assessment criteria may be satisfied by observation, questioning, expert witness testimony, professional discussion or any other approved method.</p> <p>Further guidance on this ECITB unit can be found in the SQA Accreditation ECITB Assessment Strategy document.</p>
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ECITB unit:	ECITBCO-S2 Work safely and minimise risk in engineering construction
SQA Accreditation unit code: UT55 04	
SCQF level: 6 Credit value: 10	

Unit purpose and aim: This unit has been designed to assess learner competence in being able to:

1. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
2. Call for expert help in the event of contingencies occurring, using warning systems as appropriate
3. Take prompt and appropriate action to minimise risk of personal and third-party injury as a first priority and then damage to property and equipment
4. Follow shutdown and evacuation procedures promptly and correctly
5. Deal safely with dangers that can be contained using appropriate equipment and materials, in accordance with organisational policy and procedures

In the context of this unit, responsibility is limited to working within an overall risk control strategy which has been developed by safety specialists and which includes detailed criteria for identifying risks together with clearly defined procedures for action which must be followed. In some cases, the learner may be expected to refer to others for final authorisations, even though they remain responsible for identifying and implementing decisions.

Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)

Derived from ECITB/ECRS 10.06 (CO 2), NOS ECITB (CO 4)

Learning outcomes	Assessment criteria
The candidate will:	The candidate can:
	K1.1 Explain the requirements of health and safety legislation

Learning outcomes The candidate will:	Assessment criteria The candidate can:
LO1 Understand health and safety legislation, regulations and safe working practices and procedures	K1.2 Explain the consequences for employers and employees of not fulfilling their legal health and safety responsibilities
	K1.3 Explain the purpose and nature of risk assessments, method statements, and permit to work systems, and the relevance of local procedures and guidance notes
	K1.4 Manage hazards and the associated risk and their responsibility in relation to dealing with and reporting hazards including what risks there are in relation to health and safety
LO2 Understand personal site safety responsibilities	K2.1 Demonstrate how to recognise health and safety training needs, the procedure for requesting training and who to ask for help in understanding the work instructions
	K2.2 Explain how to get information relating to the safe use of equipment and how to ensure the equipment is used safely
	K2.3 Demonstrate how to recognise when personal protective equipment should be used and how to select and use the correct equipment for the work to be undertaken
	K2.4 Explain different types of vibration injuries and explain how they can be prevented
	K2.5 Explain the importance of personal behaviour in maintaining workplace standards
	K2.6 Demonstrate the checks which are needed to make sure that portable electrical appliances are safe to use
	K2.7 Demonstrate what a safe system for electrical isolation should include and why low voltage is generally safer in relation to health and safety
	K2.8 Explain the risks from overhead cables and how to control them
	K2.9 Demonstrate what must be done when carrying hazardous substances in vehicles

Learning outcomes	Assessment criteria
The candidate will:	The candidate can:
	K2.10 Explain where asbestos is likely to be found, what should be done if it is thought to have been found and how it is a risk to health
LO3 Understand others' site safety responsibilities	K3.1 Explain who is responsible for ensuring that equipment is checked and safe to use
	K3.2 Explain the need for health and safety training for themselves and others in a workplace and the procedures for requesting training
	K3.3 Explain the consequences for employers and employees of not fulfilling their legal health and safety responsibilities
LO4 Demonstrate first aid procedures	S4.1 Follow relevant first aid procedures that typically relate to the workplace
	S4.2 Demonstrate where information, competent assistance and local first aid facilities can be obtained
LO5 Understand and follow evacuation procedures	S5.1 Follow relevant evacuation procedures that typically apply in the workplace
	S5.2 Demonstrate where information and competent assistance for evacuation can be obtained
LO6 Follow contingency reporting procedures	S6.1 Complete contingency reporting documentation following relevant systems to workplace activities
LO7 Follow appropriate reporting lines and procedures	S7.1 Comply with the various reporting lines and procedures that apply in the working environment

Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from discussions with candidates about work-based activities on suitable engineering construction industry sites
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or realistic workplace environment. Such methods may include discussions about product evidence and questioning.

Assessment criteria may be satisfied by observation, questioning, expert witness testimony, professional discussion or any other approved method.

Further guidance on this ECITB unit can be found in the SQA Accreditation ECITB Assessment Strategy document.

ECITB unit:	ECITBCO-S4 Work with environmental sustainability in mind
SQA Accreditation unit code: UT56 04	
SCQF level: 6 Credit value: 6	
<p>Unit purpose and aim: This unit has been designed to assess learner competence in being able to:</p> <ol style="list-style-type: none"> 1. Explain how to establish and maintain environmental sustainability 2. Explain how to deal with environmental considerations 3. Explain how to keep others informed about environmental plans or activities which affect them 4. Describe how to minimise use of resources and production of waste materials 5. Understand how to store re-usable materials and dispose of waste materials 6. Explain how to report environmental information, improvements, concerns or incidents 	
<p>Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)</p> <p>Derived from ECITB/ECRS 11.04 (CO 5)</p>	

Learning outcomes	Assessment criteria
The candidate will:	The candidate can:
LO1 Work in a way that contributes to environmental sustainability	K1.1 Describe how to reduce impact on the environment by following environmentally safe working practices and taking precautions to minimise environmental damage
LO2 Understand the move towards a net zero future, in accordance with their organisation's policies and targets	K2.1 Explain how to deal effectively with resources taking environmental considerations into account
	K2.2 Describe how to minimise use of resources, where possible
	K2.3 Describe how to minimise the production of waste wherever and however possible

Learning outcomes The candidate will:	Assessment criteria The candidate can:
	K2.4 Explain the correct disposal of waste materials
	K2.5 Explain how to store re-usable materials and equipment in accordance with procedures
LO3 Understand reporting lines and responsibility	K3.1 Report any environmental incidents, concerns or improvements that are identified

Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	<p>Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from discussions with candidates about work-based activities on suitable engineering construction industry sites or realistic workplace environment. Such methods may include discussions about product evidence and questioning.</p> <p>Assessment criteria may be satisfied by observation, questioning, expert witness testimony, professional discussion or any other approved method.</p> <p>Further guidance on this ECITB unit can be found in the SQA Accreditation ECITB Assessment Strategy document.</p>
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ECITB unit:	ECITBCO-S5 Interpret and follow documentation and procedures
SQA Accreditation unit code: UT23 04	
SCQF level: 6 Credit value: 6	
<p>Unit purpose and aim: This unit has been designed to assess learner competence in being able to:</p> <ol style="list-style-type: none"> 1. Interpret and follow documented procedures 2. Understand the principles of documentation 3. Understand the principles of quality control 4. Understand the principles of legal documentation 5. Understand the conventions of documentation and information communication 6. Understand the hazards arising from tools and equipment 	
<p>Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)</p> <p>Derived from ECITB/ECRS 11.04 (CO 1)</p>	

Learning outcomes	Assessment criteria
The candidate will:	The candidate can:
LO1 Interpret and follow documentation and procedures	K1.1 Check the revisions, date and validity of documentation
	K1.2 Check the revisions, date and validity of documentation
	K1.3 Interpret equipment manuals, relevant plans and schedules
	K1.4 Follow authorization procedures, quality procedures and related documentation
	K1.5 Complete all relevant documentation correctly

Learning outcomes The candidate will:	Assessment criteria The candidate can:
	K1.6 Report defects or variations and any instance where the activity cannot be met K1.7 Check that all required actions are completed, and reports are finished K1.8 Follow appropriate handover procedures K1.9 Follow safety procedures, risk assessments and methods of work K1.10 Reinstate the work area, materials, tools and equipment
LO2 Understand the principles and conventions of documentation	K2.1 Explain the principles, uses and conventions of engineering drawings K2.2 Describe the relevance of worksheets, technical drawings and related specifications K2.3 Describe the relationship between details and diagrams in engineering drawings and specifications K2.4 Explain the diagrams and key information in catalogues and equipment manuals K2.5 Describe the sources of manufacturer or additional relevant information K2.6 Explain the use of plans and schedules K2.7 Describe procedures and authorisations of related to tasks undertaken K2.8 Describe quality control and documentation procedures K2.9 Describe the importance of checking and confirming procedures and documentation K2.10 Describe the importance of signing legal documentation and the consequences accountabilities K2.11 Describe reporting of tasks undertaken

Learning outcomes The candidate will:	Assessment criteria The candidate can:
	K2.12 Explain actions to take in the event of variations to the plan of work
	K2.13 Describe reporting lines and procedures
LO3 Understand the hazards arising from tools and equipment	K3.1 Describe the hazards that can arise from preparing work materials, tools and equipment
	K3.2 Describe the hazards that can arise from reinstating work materials, tools and equipment

Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	<p>Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from discussions with candidates about work-based activities on suitable engineering construction industry sites or realistic workplace environment. Such methods may include discussions about product evidence and questioning.</p> <p>Assessment criteria may be satisfied by observation, questioning, expert witness testimony, professional discussion or any other approved method.</p> <p>Further guidance on this ECITB unit can be found in the SQA Accreditation ECITB Assessment Strategy document.</p>
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ECITB unit:	ECITBCO-S6 Use digital technology and information effectively and securely
SQA Accreditation unit code: UT54 04	
SCQF level: 5 Credit value: 2	
Unit purpose and aim: This unit has been designed to assess learner competence in being able to interpret and use basic digital information and technology securely.	
Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate) Derived from ECITB/ECRS 11.04 (CO 1)	

Learning outcomes	Assessment criteria
The candidate will:	The candidate can:
LO1 Have a knowledge of basic digital information and technology	K1.1 Demonstrate awareness of the need for security of digital data and technology use in the workplace, the reasons for and importance of this, including relevant legal aspects
	K1.2 Describe simple permission levels related to data access
	K1.3 Demonstrate awareness of the requirement of passwords in data security and how to manage passwords effectively, as appropriate for their role
	K1.4 Describe how to use software and digital systems necessary for their role
	K1.5 Describe how to use digital technology and equipment necessary for their role

Learning outcomes The candidate will:	Assessment criteria The candidate can:
	K1.6 Demonstrate awareness of how to handle digital content and online information, as relevant to their role K1.7 Demonstrate appreciation of how to conduct basic searches online, safely and appropriately to find digital information related to their role K1.8 Demonstrate awareness of how to verify information, related to the task in hand and job role, is appropriate and correct K1.9 Describe how to learn and work remotely using IT K1.10 Demonstrate awareness of the benefits of e-learning and immersive technology for training and professional development and how to use and access this
LO2 Interpret and use basic technology and information	S2.1 Use basic digital information and technology securely in accordance with company procedures S2.2 Search, select and use work-related digital information, as requested by a supervisor, to support delivery of work-related tasks S2.3 Handle standard digital content in order to communicate information, as required for their role in accordance with requests or procedures
LO3 Comprehend standard digital technology and use effectively and securely	S3.1 Use the basic features of relevant digital technology and equipment, as relevant to their role S3.2 Use standard technology to save and send digital information, in accordance with procedures S3.3 Access appropriate help and support when problems with digital technology arise S3.4 Use a range of available technology for training and professional development

Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	<p>Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from discussions with candidates about work-based activities on suitable engineering construction industry sites or realistic workplace environment. Such methods may include discussions about product evidence and questioning.</p> <p>Assessment criteria may be satisfied by observation, questioning, expert witness testimony, professional discussion or any other approved method.</p> <p>Further guidance on this ECITB unit can be found in the SQA Accreditation ECITB Assessment Strategy document.</p>
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ECITB unit:	ML-01S Determine technical and resource requirements to achieve moving lifting and positioning objectives
SQA Accreditation unit code: UT10 04	
SCQF level: 6 Credit value: 6	
<p>Unit purpose and aim: This unit has been designed to assess learner competence in being able to:</p> <p>Determine technical requirements to achieve moving, lifting and positioning objectives in the engineering construction industry. The unit is about identifying technical requirements that could deliver the specified objectives and selecting for implementation the most appropriate technical requirements to achieve the objectives.</p>	
<p>Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)</p> <p>Derived from NOS: ECIML03</p>	

Learning outcomes	Assessment criteria
The candidate will:	The candidate can:
LO1 LO1 Understand health and safety legislation, regulations and safe working practices and procedures times in relation to technical and resource requirements	K1.1 Explain the requirements of health and safety legislation
	K1.2 Explain the purpose and nature of risk assessments, method statements, and permit to work systems, and the relevance of local procedures and guidance notes
	K1.3 Describe the hazards and risks that can arise from moving, lifting and positioning loads

Learning outcomes The candidate will:	Assessment criteria The candidate can:
	K1.4 Explain the relevant legislative, regulatory and local requirements or procedures and safe working practices including their responsibilities with regards to reporting lines and procedures
LO2 Understand work area, material and equipment preparation and reinstatement requirements for determining technical and resource requirements	K2.1 Describe the preparation and reinstatement requirements in respect of the work area, material, and equipment, and the possible consequences of incorrect actions in these area
	K2.2 Describe the related quality control documentation procedures
	K2.3 Explain tool, equipment and drawing control, the correct use of relevant tools, equipment and drawings and their individual responsibility for the use, care and security of those they use

Learning outcomes The candidate will:	Assessment criteria The candidate can:
LO3 LO3 Understand the tools, terminology, techniques and practices for determining technical and resource requirements	K3.1 Describe how to identify technical and resource requirements from all the available information sources
	K3.2 Explain the implications of working at height
	K3.3 Explain how to interpret information obtained from work objectives in relation to: <ul style="list-style-type: none"> a. Resources, tools and equipment b. Skills sets and appropriately authorised personnel c. Individuals’ roles and responsibilities d. Communication methods/techniques e. Work schedules f. Lifting equipment specifications g. Lift plans h. Method statements
	K3.4 Explain the implications of various characteristics of the work environment, such as confined spaces, live plant and weather
	K3.5 Describe planning methods and techniques commonly used
	K3.6 Describe methods of presentation technical and resource information
LO4 Work safely and minimise risk at all times in relation to technical and resource requirements	S4.1 Work safely and minimise risk at all times in relation to technical and resource requirements
	S4.2 Take appropriate action to minimise the risk from hazards
	S4.3 Refer safety related matters to appropriate persons as required
	S4.4 Work in accordance with the requirements of risk assessments and permit to work systems

Learning outcomes The candidate will:	Assessment criteria The candidate can:
	S4.5 Comply with health, safety, environmental and other relevant legislation, regulations, guidelines and local rules or procedures
LO5 Prepare work area, materials and equipment times in relation to technical and resource requirements	S5.1 Ensure that the work environment, material and equipment are suitably prepared for the work activities to be undertaken
LO6 Determine technical and resource requirements	S6.1 Interpret the specifications in relation to: a. Technical requirements b. Resource requirements
	S6.2 Determine and specify technical and resource requirements to meet the objectives including: a. Resources, tools and equipment b. Skill sets and appropriately authorised personnel c. Individual roles and responsibilities d. Communication methods/techniques e. Work schedules f. Lifting equipment specifications g. Method statements
	S6.3 Assess work methods and techniques for their suitability and technical feasibility to meet work objectives
LO7 Carry out the necessary actions after completing assembling pipework components to meet specification	S7.1 Report and advise on the chosen technical and resource requirements, clearly stating the requirements that cannot be achieved
	S7.2 Ensure agreement of the technical and resource requirements in line with company processes

Learning outcomes The candidate will:	Assessment criteria The candidate can:
	<p>S7.3 Effectively communicate the agreed technical and resource requirements to the lifting team before the lifting operations start</p> <p>S7.4 Deal promptly and effectively with problems within their control and report those that have been and those that cannot be solved</p>

Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	<p>Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from work-based activities on suitable engineering construction industry sites.</p> <p>Assessment criteria may be satisfied by observation, questioning, expert witness testimony, professional discussion or any other approved method.</p> <p>Mandatory workplace observation is required for Assessment Criteria S6.1, S6.2, S6.3, S7.1, S7.2 & S7.3 which may take the form of an expert witness testimony supported by photographic and/or video evidence.</p> <p>Further guidance on this ECITB unit can be found in the SQA Accreditation ECITB Assessment Strategy document.</p>
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ECITB unit:	ML-02S Prepare loads for moving, lifting and positioning		
SQA Accreditation unit code: UT34 04			
SCQF level: 6	Credit value:	16	
<p>Unit purpose and aim: This unit has been designed to assess learner competence in being able to prepare loads for moving or lifting and positioning in the engineering construction industry.</p> <p>This unit is about planning and assessing the preparation requirements to move, lift and position loads taking into account the environmental considerations whilst adhering to health and safety legislation, regulations and safe working practices.</p> <p>The unit is about establishing the weight of the load to be moved, checking that the equipment to be used is capable of moving the load safely and ensuring that the load is secured and protected before moving operations start.</p> <p>In the context of this unit, responsibility is limited to working within detailed specifications and clearly defined procedures. In some cases, the learner may still be expected to refer to others for final authorisations, even though they remain responsible for identifying and implementing decisions.</p>			
<p>Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)</p> <p>Derived from NOS: ECIML01</p>			

Learning outcomes	Assessment criteria
The candidate will:	The candidate can:
LO1 Understand health and safety legislation, regulations and safe working practices and procedures times in relation to technical and resource requirements	K1.1 Explain the requirements of health and safety legislation
	K1.2 Explain the purpose and nature of risk assessments, method statements, and permit to work systems, and the relevance of local procedures and guidance notes
	K1.3 Describe the hazards and risks that can arise from moving, lifting and positioning loads

Learning outcomes The candidate will:	Assessment criteria The candidate can:
	K1.4 Explain the relevant legislative, regulatory and local requirements or procedures and safe working practices including their responsibilities with regards to reporting lines and procedures
LO2 Understand work area, material and equipment preparation and reinstatement requirements for moving, lifting and positioning activities	K2.1 Describe the preparation and reinstatement requirements in respect of the work area, material, and equipment, and the possible consequences of incorrect actions in these area
	K2.2 Describe tool, equipment and drawing control, the correct use of relevant tools, equipment and drawings and their individual responsibility for the use, care and security of those they use

Learning outcomes The candidate will:	Assessment criteria The candidate can:
LO3 Understand the tools, terminology, techniques and practices for moving, lifting and positioning activities	K3.1 Describe the types and application of construction elements and assemblies
	K3.2 Describe the methods of construction element identification and orientation before assembly
	K3.3 Describe the approved installation methods and techniques used to align, position and connect construction elements and assemblies
	K3.4 Describe the methods and techniques for: <ul style="list-style-type: none"> a. Slinging b. Lifting c. Signalling
	K3.5 Explain types of equipment used for holding loads in the required positions
	K3.6 Describe methods of providing temporary support during installation and the related limiting factors
	K3.7 Describe the related quality control documentation procedures
LO4 Work safely and minimise risk at all times in relation to technical and resource requirements	S4.1 Identify a range of hazards
	S4.2 Take appropriate action to minimise the risk from hazards
	S4.3 Refer safety related matters to appropriate persons as required
	S4.4 Work in accordance with the requirements of risk assessments and permit to work systems
	S4.5 Work safely at all times, complying with health, safety, environmental and other relevant legislation, regulations, guidelines and local rules or procedures

Learning outcomes	Assessment criteria
The candidate will:	The candidate can:
LO5 Prepare work area, materials and equipment when preparing to move loads	S5.1 Ensure that the work environment, material, equipment are suitably prepared for the work activities to be undertaken
LO6 Prepare loads for moving or lifting and positioning	S6.1 Establish the weight and centre of gravity of the load to be moved
	S6.2 Determine the methods and techniques for moving, lifting the load and the equipment required
	S6.3 Determine a suitable route for moving the load minimising the risk to people and property
	S6.4 Obtain the required load(s) and check it for quantity, quality and orientation
	S6.5 Prepare the load(s) and determine the correct sequence of moving, lifting and positioning the loads
	S6.6 Correctly protect the load(s) and equipment from damage
	S6.7 Ensure the equipment is secure, and the load and equipment are still protected before moving, lifting and positioning operations start
LO7 Carry out the necessary actions after completing moving, lifting and positioning activities	S7.1 Reinststate the work area
	S7.2 Deal promptly and effectively with problems and within their control and report those that have been and those that cannot be solved

Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from work-based activities on suitable engineering construction industry sites.
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Assessment criteria may be satisfied by observation, questioning, expert witness testimony, professional discussion or any other approved method.

Mandatory observation is required for Assessment Criteria S5.1, S6.1, S6.2, S6.3, S6.4, S6.5, S6.6 & S6.7 which may take the form of an expert witness testimony supported by photographic and/or video evidence.

Further guidance on this ECITB unit can be found in the SQA Accreditation ECITB Assessment Strategy document.

ECITB unit:	ML-03S Move loads over the approved route
SQA Accreditation unit code: UT28 04	
SCQF level: 6 Credit value: 15	
<p>Unit purpose and aim: This unit has been designed to assess learner competence in being able to move loads in the engineering construction industry.</p> <p>The unit is about positioning the moving equipment so that the weight of the load is evenly distributed, confirming that the load is secure before moving and releasing the load safely in its intended final location.</p> <p>In the context of this unit, responsibility is limited to working within detailed specifications and following clearly defined procedures in the form of method statements. In some cases, the learner may still be expected to refer to others for final authorisations, even though they remain responsible for identifying and implementing decisions.</p>	
<p>Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)</p> <p>Derived from NOS: ECIML02</p>	

Learning outcomes The candidate will:	Assessment criteria The candidate can:
LO1 Understand health and safety legislation, regulations and safe working practices and procedures in relation to moving loads	K1.1 Explain the requirements of health and safety legislation
	K1.2 Explain the purpose and nature of risk assessments, method statements, and permit to work systems, and the relevance of local procedures and guidance notes
	K1.3 Describe the hazards and risks that can arise from moving loads
	K1.4 Describe the relevant legislative, regulatory and local requirements or procedures and safe working practices including their responsibilities with regards to reporting lines and procedures
LO2 Understand work area, material and equipment preparation and reinstatement requirements for the moving of loads	K2.1 Understand how the preparation and reinstatement requirements for moving loads in respect of the work area, material and equipment, and the possible consequences of incorrect actions in these areas
LO3 Understand the tools, terminology, techniques and practices for the moving of loads	K3.1 Describe typical load characteristics
	K3.2 Describe the methods and techniques for moving loads
	K3.3 Explain the types of equipment used for the following: <ul style="list-style-type: none"> a. Lifting loads b. Moving loads c. Handling loads
	K3.4 Describe the factors which effect the identification of the intended final destination for the load
	K3.5 Explain the types and characteristics of materials that are required to protect the load when it is released

Learning outcomes The candidate will:	Assessment criteria The candidate can:
LO4 Work safely and minimise risk at all times in relation to moving loads	S4.1 Identify a range of hazards S4.2 Take appropriate action to minimise the risk from hazards S4.3 Refer safety related matters to appropriate persons as required S4.4 Work in accordance with the requirements of risk assessments and permit to work systems S4.5 Work safely at all times, complying with health, safety, environmental and other relevant legislation, regulations, guidelines and local rules or procedures
LO5 Carry out the necessary actions after moving loads	S5.1 Ensure that the work environment, material, and equipment are suitably prepared for the work activities to be undertaken
LO6 Move loads	S6.1 Position the moving equipment so that the weight of the load is evenly distributed S6.2 Attach the appropriate lifting, moving and handling equipment securely to the load using approved methods to eliminate slippage S6.3 Confirm that the load is secure before moving S6.4 Move the load over the selected, approved route S6.5 Position and release the load safely in its intended final destination on appropriate packing materials
LO7 Carry out the necessary actions after moving loads	S7.1 Reinstate the work area S7.2 Deal promptly and effectively with problems within their control and report those that have been and those that cannot be solved

<p>Learning outcomes</p> <p>The candidate will:</p>	<p>Assessment criteria</p> <p>The candidate can:</p>
<p>Assessment requirements or guidance specified by a sector regulatory body (if appropriate)</p>	<p>Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from work-based activities on suitable engineering construction industry sites.</p> <p>Assessment criteria may be satisfied by observation, questioning, expert witness testimony, professional discussion or any other approved method.</p> <p>Mandatory workplace observation is required for Assessment Criteria S5.1, S6.1, S6.2, S6.3, S6.4, S6.5 & S7.1 which may take the form of an expert witness testimony supported by photographic and/or video evidence.</p> <p>Further guidance on this ECITB unit can be found in the SQA Accreditation ECITB Assessment Strategy document.</p>

ECITB unit:	ML-04S Position and install construction elements and assemblies
SQA Accreditation unit code: UT29 04	
SCQF level: 7 Credit value: 21	
<p>Unit purpose and aim: This unit has been designed to assess learner competence in being able to position and install construction elements and assemblies in the engineering construction industry.</p> <p>The unit is about determining what has to be done and how this will be achieved, positioning and securing the construction elements in line with the specification and securely fixing any necessary temporary support facilities.</p> <p>In the context of this unit, responsibility is limited to working within detailed specifications and clearly defined procedures. In some cases, the learner may still be expected to refer to others for final authorisations, even though they remain responsible for identifying and implementing decisions.</p>	
<p>Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)</p> <p>Derived from NOS-ECIIPSP-07</p>	

Learning outcomes	Assessment criteria
The candidate will:	The candidate can:
LO1 Understand health and safety legislation, regulations and safe working practices and procedures in relation to positioning and installing construction elements	K1.1 Explain the requirements of health and safety legislation
	K1.2 Explain the purpose and nature of risk assessments, method statements, and permit to work systems, and the relevance of local procedures and guidance notes
	K1.3 Describe the hazards and risks that can arise from positioning and installing construction elements and assemblies

Learning outcomes The candidate will:	Assessment criteria The candidate can:
	K1.4 Explain relevant legislative, regulatory and local requirements or procedures and safe working practices including their responsibilities with regard to reporting lines and procedures
LO2 Understand work area, material and equipment preparation and reinstatement requirements for positioning and installing construction elements and assemblies	K2.1 Describe preparation and reinstatement requirements in respect of the work area, material, and equipment, and the possible consequences of incorrect actions in these areas
	K2.2 Explain tool, equipment and drawing control, the correct use of relevant tools, equipment and drawings and their individual responsibility for the use, care and security of those they use

Learning outcomes The candidate will:	Assessment criteria The candidate can:
LO3 Understand the tools, terminology, techniques and practices for positioning and installing construction elements and assemblies	K3.1 Explain the types and application of construction elements and assemblies, the methods of construction element identification and orientation before assembly.
	K3.2 Explain the approved installation methods and techniques used to align, position and connect construction elements and assemblies
	K3.3 Describe the methods and techniques for: <ul style="list-style-type: none"> a. slinging b. lifting c. signalling
	K3.4 Describe types of equipment used for holding loads in the required positions
	K3.5 Explain the methods of providing temporary support during installation and the related limiting factors
	K3.6 Explain related quality control documentation procedures.
LO4 Work safely and minimise risk at all times in relation to positioning and installing construction elements	S4.1 Identify a range of hazards
	S4.2 Take appropriate action to minimise the risk from hazards
	S4.3 Refer safety related matters to appropriate persons as required
	S4.4 Work in accordance with the requirements of risk assessments and permit to work systems
	S4.5 Work safely at all times, complying with health, safety, environmental and other relevant legislation, regulations, guidelines and local rules or procedures
LO5 Prepare work area, materials and equipment in relation to	S5.1 Identify, select and conduct pre-use checks on the tools and equipment for the installation operations

Learning outcomes The candidate will:	Assessment criteria The candidate can:
positioning and installing construction elements	S5.2 Ensure that the work environment, and materials and equipment are suitably prepared for the work activities to be undertaken.
LO6 Position and install construction elements and assemblies	S6.1 Assess the work circumstances and the related technical implications in relation to the task specifications and drawings
	S6.2 Attach the appropriate handling equipment securely to the construction elements or assemblies, using approved methods to allow for ease of alignment and connection
	S6.3 Confirm that the prepared load is secure before moving
	S6.4 Use approved installation methods and techniques to include: a. Slinging. b. Lifting. c. Signalling.
	S6.5 Position the moving equipment so that the construction elements or assemblies are appropriately aligned and supported
	S6.6 Install, position and secure the construction elements/assemblies, and components as specified
	S6.7 Securely fix any necessary temporary support facilities
	S6.8 Release the load safely in its intended final location
	S6.9 Ensure all the necessary connections are complete
	S6.10 Check the installation is complete and that all components are free from damage

Learning outcomes The candidate will:	Assessment criteria The candidate can:
	S6.11 Follow quality control documentation procedures S6.12 Take appropriate measures to protect the finished construction
LO7 Carry out the necessary actions after completing the position and install	S7.1 Reinststate the work area S7.2 Deal promptly and effectively with problems within their control and report those that have been and those that cannot be solved.

Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	<p>Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from work-based activities on suitable engineering construction industry sites.</p> <p>Assessment criteria may be satisfied by observation, questioning, expert witness testimony, professional discussion or any other approved method.</p> <p>Mandatory workplace observation is required for Assessment Criteria S6.1, S6.2, S6.3, S6.4, S6.5, S6.6, S6.7, S6.8, S6.9, S6.10 & S6.12 which may take the form of an expert witness testimony supported by photographic and/or video evidence.</p> <p>Further guidance on this ECITB unit can be found in the SQA Accreditation ECITB Assessment Strategy document.</p>
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ECITB unit:	ML-05S Check the construction elements and assemblies are installed to specification
SQA Accreditation unit code: UT05 04	
SCQF level: 6 Credit value: 9	
<p>Unit purpose and aim: This unit has been designed to assess learner competence in being able to check that the steel structure is installed to specification in the engineering construction industry.</p> <p>The unit is about carrying out the checks in an appropriate sequence using approved methods and procedures and reporting their completion in line with organisational procedures.</p> <p>In the context of this unit, responsibility is limited to working within detailed specifications and following clearly defined procedures in the form of method statements. In some cases, the learner may still be expected to refer to others for final authorisations, even though they remain responsible for identifying and implementing decisions.</p>	
<p>Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)</p> <p>Derived from NOS: ECICCPSS01</p>	

Learning outcomes	Assessment criteria
The candidate will:	The candidate can:
LO1 Understand health and safety legislation, regulations and safe working practices and procedures in relation to checking construction elements	K1.1 Explain the requirements of health and safety legislation
	K1.2 Explain the purpose and nature of risk assessments, method statements, and permit to work systems, and the relevance of local procedures and guidance notes
	K1.3 Describe the hazards and risks that can arise from checking construction elements and assemblies

Learning outcomes The candidate will:	Assessment criteria The candidate can:
	K1.4 Explain the relevant legislative, regulatory and local requirements or procedures and safe working practices including their responsibilities with regards to reporting lines and procedures
LO2 Understand work area, material and equipment preparation and reinstatement requirements for checking construction elements and assemblies	K2.1 Describe the preparation and reinstatement requirements in respect of the work area, material, and equipment used and the possible consequences of incorrect actions in these areas
	K2.2 Explain tool, equipment and drawing control, the correct use of relevant tools, equipment and drawings and their individual responsibility for the use, care and security of those they use
LO3 Understand how to comply with the various reporting lines and procedures that apply in the working environment in relation to checking construction elements	K3.1 Explain the compliance checking methods and techniques
	K3.2 Explain how to identify defects, and how to rectify them quality control systems and documentation procedures in relation to post installation inspection
LO4 Work safely and minimise risk at all times in relation to checking construction elements	S4.1 Identify a range of hazards
	S4.2 Take appropriate action to minimise the risk from hazards
	S4.3 Refer safety related matters to appropriate persons as required
	S4.4 Work in accordance with relevant sections of the Health and Safety at Work Act and its associated regulations
	S4.5 Work safely at all times, complying with health, safety, environmental and other relevant legislation, regulations, guidelines and local rules or procedures

Learning outcomes The candidate will:	Assessment criteria The candidate can:
LO5 Prepare work area and equipment in relation to checking construction elements	S5.1 Ensure that the work environment, material and equipment are suitably prepared for the work activities to be undertaken
LO6 Check construction elements and assemblies	S6.1 Interpret and follow the appropriate specification for the construction elements and assemblies being checked
	S6.2 Use the correct tools and inspection equipment and check they are in a usable condition
	S6.3 Carry out compliance checks in the correct sequence using approved methods and procedures
	S6.4 Identify, assess and report defects or variations from the specification and take appropriate action
LO7 Carry out the necessary actions after completing checking the construction elements and assemblies are installed to specification	S7.1 Report completion of compliance activities in line with organisational procedures
	S7.2 Reinstate the work area
	S7.3 Deal promptly and effectively with problems within their control and report those that have been and those that cannot be solved

<p>Assessment requirements or guidance specified by a sector regulatory body (if appropriate)</p>	<p>Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from work-based activities on suitable engineering construction industry sites.</p> <p>Assessment criteria may be satisfied by observation, questioning, expert witness testimony, professional discussion or any other approved method.</p> <p>Mandatory workplace observation is required for Assessment Criteria S6.1, S6.2 & S6.3 which may take the form of an expert witness testimony supported by photographic and/or video evidence.</p> <p>Further guidance on this ECITB unit can be found in the SQA Accreditation ECITB Assessment Strategy document.</p>
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ECITB unit:	ML-06S Dismantle construction elements and assemblies for movement
SQA Accreditation unit code: UT18 04	
SCQF level: 7 Credit value: 14	
<p>Unit purpose and aim: This unit has been designed to assess learner competence in being able to dismantle assemblies for movement in the engineering construction industry.</p> <p>The unit is about establishing, and where necessary, supporting components before removal of securing devices and removing the components in the correct sequence using approved equipment, methods and techniques.</p> <p>In the context of this unit, responsibility is limited to working within detailed specifications and clearly defined procedures. In some cases, the learner may still be expected to refer to others for final authorisations, even though they remain responsible for identifying and implementing decisions.</p>	
<p>Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)</p> <p>Derived from NOS: ECIML06</p>	

Learning outcomes	Assessment criteria
The candidate will:	The candidate can:
LO1 Understand health and safety legislation, regulations and safe working practices and procedures in relation to dismantling elements	K1.1 Explain the requirements of health and safety legislation
	K1.2 Explain the purpose and nature of risk assessments, method statements, and permit to work systems, and the relevance of local procedures and guidance notes
	K1.3 Describe the hazards and risks that can arise from dismantling construction elements or assemblies for movement

Learning outcomes The candidate will:	Assessment criteria The candidate can:
	K1.4 Explain relevant legislative, regulatory and local requirements or procedures and safe working practices including their responsibilities with regard to reporting lines and procedures.
LO2 Understand work area and equipment preparation and reinstatement requirements for dismantling activities	K2.1 Describe preparation and reinstatement requirements in respect of the work area, material, equipment, and tools, and the possible consequences of incorrect actions in these areas
	K2.2 Describe their responsibilities for ensuring care and security of tools, drawings and equipment used

Learning outcomes The candidate will:	Assessment criteria The candidate can:
LO3 Understand the terminology, techniques and practices for dismantling activities	K3.1 Describe the types and application of construction elements and assemblies
	K3.2 Describe the methods and techniques relating to the dismantling of construction components
	K3.3 Describe methods of providing temporary support during dismantling
	K3.4 Explain the considerations to be taken into account when dismantling elements and assemblies on an operational site and what limitations this can impose
	K3.5 Explain how these considerations can impact on the following: <ul style="list-style-type: none"> a. selection of method or technique b. size of components c. selection of equipment d. implications of operation on work activities
	K3.6 Explain the implications on workplace infrastructure of dismantling activities and operations on live plant, including supplies
	K3.7 Explain the related quality control documentation procedures

Learning outcomes The candidate will:	Assessment criteria The candidate can:
LO4 Work safely and minimise risk at all times in relation to dismantling elements	S4.1 Identify a range of hazards
	S4.2 Take appropriate action to minimise the risk from hazards
	S4.3 Refer safety related matters to appropriate persons as required
	S4.4 Work safely at all times, complying with health, safety, environmental and other relevant legislation, regulations, guidelines and local rules or procedures

Learning outcomes The candidate will:	Assessment criteria The candidate can:
LO5 Prepare work area, materials and equipment in relation to dismantling elements	S5.1 Ensure that the work environment, material, equipment and tools are suitably prepared for the work activities to be undertaken
LO6 Dismantle construction elements or assemblies for movement	S6.1 Identify the construction elements or assemblies to be removed and determine the most appropriate method of dismantling
	S6.2 Establish and where necessary provide temporary support to components before removal of securing devices
	S6.3 Dismantle in accordance with the instructions and specifications
	S6.4 Remove the components in the correct sequence using approved equipment, dismantling methods and techniques
LO7 Carry out the necessary actions after dismantling activities have been completed	S7.1 Dispose of unwanted elements in line with agreed and approved procedures
	S7.2 Inform the appropriate people when dismantling is completed
	S7.3 Reinstate the work area
	S7.4 Deal promptly and effectively with problems within their control and report those that have been and those that cannot be resolved

<p>Assessment requirements or guidance specified by a sector regulatory body (if appropriate)</p>	<p>Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from work-based activities on suitable engineering construction industry sites.</p> <p>Assessment criteria may be satisfied by observation, questioning, expert witness testimony, professional discussion or any other approved method.</p> <p>Mandatory workplace observation is required for Assessment Criteria S5.1, S6.1, S6.3 & S6.4 which may take the form of an expert witness testimony supported by photographic and/or video evidence.</p> <p>Further guidance on this ECITB unit can be found in the SQA Accreditation ECITB Assessment Strategy document.</p>
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ECITB unit:	ML-07S Undertake complex movement of loads
SQA Accreditation unit code: UT53 04	
SCQF level: 7 Credit value: 22	
<p>Unit purpose and aim: This unit has been designed to assess learner competence in being able to conduct the complex movement of loads in the engineering construction industry.</p> <p>The unit is about reading and interpreting detailed technical information to correctly select and install lifting and moving equipment throughout the planned route to the load’s final destination and lower and position in its final location.</p> <p>In the context of this unit, responsibility is limited to working within detailed specifications and clearly defined procedures. Learners will be expected to refer to others for final authorisations, even though they remain responsible for identifying and implementing decisions.</p>	
<p>Details of the relationship between the unit and relevant National Occupational Standards or other professional standards or curricula (if appropriate)</p> <p>Derived from NOS: ECIML09</p>	

Learning outcomes	Assessment criteria
The candidate will:	The candidate can:
LO1 Understand health and safety legislation, regulations and safe working practices and procedures in relation to complex movement of loads	K1.1 Explain the requirements of health and safety legislation
	K1.2 Explain the purpose and nature of risk assessments, method statements, and permit to work systems, and the relevance of local procedures and guidance notes
	K1.3 Describe the hazards and risks that can arise from undertaking complex movement of loads

Learning outcomes The candidate will:	Assessment criteria The candidate can:
	K1.4 Explain relevant legislative, regulatory and local requirements or procedures and safe working practices including their responsibilities with regard to reporting lines and procedures
LO2 Understand work area, material and equipment preparation and reinstatement requirements for undertaking complex movement of loads	K2.1 Describe preparation and reinstatement requirements in respect of the work area, material, and equipment, and the possible consequences of incorrect actions in these areas
	K2.2 Explain their responsibilities for ensuring care and security of tools, drawings and equipment use
LO3 Understand the tools, terminology, techniques and practices for complex movement of loads	K3.1 Explain the methods and techniques used for the movement of loads through complicated environments and routes
	K3.2 Explain the methods and equipment used for the lifting of persons
	K3.3 Explain the technical information which is required to complete complex lifting operation
	K3.4 Explain mode factors
	K3.5 Describe how to identify and specify the correct location of a winch for the intended lifting operations
	K3.6 Describe how to achieve mechanical advantage through the use of reeving multiple fall rigging arrangement (load and pull)
	K3.7 Explain how to select lifting equipment for complicated environments and complex operations
	K3.8 Describe complex load movement, route planning methods and techniques

Learning outcomes The candidate will:	Assessment criteria The candidate can:
	K3.9 Explain the roles of the Appointed Person (AP), and Lift Supervisor when carrying out complex lifts
LO4 Work safely and minimise risk at all times in relation to dismantling elements	S4.1 Identify a range of hazards
	S4.2 Take appropriate action to minimise the risk from hazards
	S4.3 Refer safety related matters to appropriate persons as required
	S4.4 Work safely at all times, complying with health, safety, environmental and other relevant legislation, regulations, guidelines and local rules or procedures
LO5 Prepare work area and equipment in relation to complex movement of loads	S5.1 Ensure that the work environment, and materials and equipment are suitably prepared for the work activities to be undertaken
	S5.2 Select the correct lifting equipment taking into account the materials and the environment
	S5.3 Interpret and follow the specification applying the correct technical information as required to achieve the objectives.
	S5.4 Deal promptly and effectively with problems, seek clarification if problems arise and report those that have been and those that cannot be solve
LO6 Undertake complex movement of loads	S6.1 Position the moving and lifting equipment as required to cross haul the load
	S6.2 Attach the appropriate handling equipment securely to the load, using approved methods to eliminate slippage
	S6.3 Confirm the load is secure before moving
	S6.4 Move the load over the selected route

Learning outcomes The candidate will:	Assessment criteria The candidate can:
	S6.5 Apply methods and techniques to manipulate loads through complicated environments and routes S6.6 Maintain the correct mode factors during the complex movement of loads S6.7 Position the load safely in its intended final location S6.8 Seek authority from the appropriate person to begin the complex movement of loads, position load in final position and to release tension of load
LO7 Carry out the necessary actions after completing undertaking complex movement of loads	S7.1 Reinststate the work area S7.2 Complete related quality control documentation procedures

Assessment requirements or guidance specified by a sector regulatory body (if appropriate)	<p>Assessment of this unit will be by occupationally competent assessors approved by an awarding body. They will gather sufficient evidence of competence from work-based activities on suitable engineering construction industry sites.</p> <p>Assessment criteria may be satisfied by observation, questioning, expert witness testimony, professional discussion or any other approved method.</p> <p>Mandatory workplace observation is required for Assessment Criteria S5.1, S5.2, S5.3, S6.1, S6.2, S6.3, S6.4, S6.5, S6.6 & S6.7 which may take the form of an expert witness testimony supported by photographic and/or video evidence.</p> <p>Further guidance on this ECITB unit can be found in the SQA Accreditation ECITB Assessment Strategy document.</p>
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