

Specification

Edexcel NVQ/competence-
based qualifications

Edexcel Level 2 NVQ Diploma in Piling Operations (Construction) (QCF)

For first registration August 2010

Edexcel, a Pearson company, is the UK's largest awarding organisation offering vocational and academic qualifications and testing, to employers, training providers, colleges, schools, and other places of learning in the UK, and in over 85 countries worldwide.

Our specialist suite of qualifications include NVQs, Apprenticeships, WorkSkills, Functional Skills, Foundation Learning, as well as our exclusive range of BTECs, from entry level right through to Higher National Diplomas.

References to third party material made in this specification are made in good faith. Edexcel does not endorse, approve or accept responsibility for the content of materials, which may be subject to change, or any opinions expressed therein. (Material may include textbooks, journals, magazines and other publications and websites.)

Authorised by Roger Beard
Prepared by John Crew

Publications Code N025030

All the material in this publication is copyright
© Edexcel Limited 2010

Contents

Qualification titles covered by this specification	1
Key features of the Edexcel Level 2 NVQ Diploma in Piling Operations (Construction) (QCF)	3
What is the purpose of this qualification?	3
Who is this qualification for?	3
What are the benefits of this qualification to the learner and employer?	3
What are the potential job roles for those working towards this qualification?	3
What progression opportunities are available to learners who achieve this qualification?	4
What is the qualification structure for the Edexcel Level 2 NVQ Diploma in Piling Operations (Construction) (QCF)?	5
How is the qualification graded and assessed?	8
Assessment Requirements/Strategy	8
Types of evidence	9
Additional requirements	10
Centre recognition and approval	11
Centre recognition	11
Approvals agreement	11
Quality assurance	11
What resources are required?	11
Unit format	12
Units	13
Unit 1: Conforming to general safety in the workplace	15
Unit 2: Conforming to efficient working practices in the workplace	19
Unit 3: Moving and handling resources in the workplace	23
Unit 4: Contributing to the piling operation in the workplace	31
Unit 5: Slinging and signalling the movement of loads (secondary role) in the workplace	41
Unit 6: Preparing and operating crawler cranes (above 10 tonnes) to lift and transfer loads in the workplace	49
Unit 7: Preparing and operating mobile cranes to lift and transfer loads in the workplace	59

Unit 8:	Preparing and operating rough terrain mast-mounted forklifts to lift and transfer loads in the workplace	69
Unit 9:	Preparing and operating telescopic handlers to lift and transfer loads in the workplace	79
Unit 10:	Preparing and operating lorry loaders or knuckle boom cranes to lift and transfer loads in the workplace	89
Unit 11:	Preparing and operating skip handlers to lift and transfer loads in the workplace	99
Unit 12:	Preparing and operating 360 degree excavators to excavate ground in the workplace	109
Unit 13:	Preparing and operating truck-mounted boom concrete pumps to receive, pump and discharge materials in the workplace	119
Unit 14:	Preparing and operating forward tipping dumpers to receive, transport and discharge materials in the workplace	129
Unit 15:	Preparing and operating rear tipping dump trucks to receive, transport and discharge materials in the workplace	139
Unit 16:	Preparing and operating trailer-mounted concrete pumps to receive, pump and discharge materials in the workplace	149
Unit 17:	Erecting and dismantling plant (cranes and rigs) in the workplace	159
Unit 18:	Carrying out checks and/or basic maintenance on plant or machinery in the workplace	169
Unit 19:	Operating piling rigs to construct and form in the workplace	179
Unit 20:	Allocating and monitoring the use of plant and equipment in the workplace	187
Unit 21:	Carrying out mud, slurry or fluid plant operations in the workplace	193
Unit 22:	Carrying out tremie operations in the workplace	203
Unit 23:	Guiding the piling rig for the formation of piles in the workplace	211
Unit 24:	Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace	221
Unit 25:	Preparing and operating wheeled loading shovels to extract loose materials in the workplace	231
Unit 26:	Preparing and operating tracked loading shovels to extract ground and loose materials in the workplace	241
Unit 27:	Preparing and operating skid steer loaders to extract loose materials in the workplace	251
Unit 28:	Preparing and operating 360 degree excavators to extract ground, face and/or loose materials in the workplace	261
Unit 29:	Preparing and operating specialised powered tools and equipment in the workplace	271

Further information	279
Useful publications	279
How to obtain National Occupational Standards	279
Professional development and training	280
Annexe A: Progression pathways	281
The Edexcel qualification framework for the construction and the built environment sector	281
Annexe B: Quality assurance	285
Key principles of quality assurance	285
Quality assurance processes	285
Annexe C: Centre certification and registration	287
What are the access arrangements and special considerations for the qualification in this specification?	287
Annexe D: Additional requirements for qualifications that use the title NVQ within the QCF	289
Annexe E: Assessment Requirements/Strategy	297

Qualification titles covered by this specification

This specification gives you the information you need to offer the Edexcel Level 2 NVQ Diploma in Piling Operations (Construction) (QCF):

Qualification title	Qualification Accreditation Number (QAN)	Accreditation start date
Edexcel Level 2 NVQ Diploma in Piling Operations (Construction) (QCF)	500/9562/6	01/08/2010

This qualification has been accredited within the Qualifications and Credit Framework (QCF) and is eligible for public funding as determined by the Department for Education (DfE) under Sections 96 and 97 of the Learning and Skills Act 2000.

The qualification title listed above features in the funding lists published annually by the DfE and the regularly updated website. It will also appear on the Learning Aims Database (LAD), where relevant.

You should use the QCF Qualification Accreditation Number (QAN), when you wish to seek public funding for your learners. Each unit within a qualification will also have a unique QCF reference number, which is listed in this specification.

The QCF qualification title and unit reference numbers will appear on the learners' final certification document. Learners need to be made aware of this when they are recruited by the centre and registered with Edexcel.

These titles replace the following qualifications from 1st August 2010:

Qualification title

Edexcel Level 2 NVQ in Piling Operations

**Qualification
Accreditation
Number (QAN)**

500/1627/1

**Accreditation
start date**

01/02/2007

**Accreditation
end date**

31/12/2010

Key features of the Edexcel Level 2 NVQ Diploma in Piling Operations (Construction) (QCF)

This qualification:

- is nationally recognised
- is based on the ConstructionSkills National Occupational Standards (NOS). The NOS, Assessment requirements/strategy and qualification structure(s) are owned by ConstructionSkills.

The Edexcel Level 2 NVQ Diploma in Piling Operations (Construction) (QCF) has been approved as a component for the ConstructionSkills Apprenticeship framework.

What is the purpose of this qualification?

This qualification is appropriate for employees in the construction and the built environment sector working across a broad range of areas. It is designed to assess occupational competence in the workplace where learners are required to demonstrate skills and knowledge to a level required in the construction industry.

Who is this qualification for?

This qualification is for all learners aged 16 and above who are capable of reaching the required standards.

Edexcel's policy is that the qualification should:

- be free from any barriers that restrict access and progression
- ensure equality of opportunity for all wishing to access the qualification.

What are the benefits of this qualification to the learner and employer?

This qualification allows learners to demonstrate competence against National Occupational Standards which are based on the needs of the construction industry as defined by ConstructionSkills, the Sector Skills Council. As such it contributes to the development of skilled labour in the sector. The qualification may contribute towards the competence element of an Apprenticeship.

What are the potential job roles for those working towards this qualification?

- Construction operative.

What progression opportunities are available to learners who achieve this qualification?

This qualification allows learners to demonstrate competence in piling operations at a level required by the construction and the built environment industry. Learners can progress across the level and size of the construction and the built environment competence and knowledge qualifications and into other occupational areas such as team leading and management.

Further information is available in *Annexe A*.

What is the qualification structure for the Edexcel Level 2 NVQ Diploma in Piling Operations (Construction) (QCF)?

Individual units can be found in the *Units* section. The QCF level and credit value are given on the first page of each unit.

Edexcel Level 2 NVQ Diploma in Piling Operations - Piling Rig Operator (Construction) - Learners must complete all units in Group A to obtain 42 credits and all units in Group B1 to obtain 60 credits to give a minimum of 102 credits in total.

Edexcel Level 2 NVQ Diploma in Piling Operations - Piling Operative (Construction) - Learners must complete all units in Group A to obtain 42 credits and a minimum of one unit in Group C1 to obtain 4 credits to give a minimum of 46 credits in total.

Additional units from Group AD are deemed, by industry-led working groups, as relevant to the occupation and may be used to enhance the qualification for this occupation. Learners may choose any or none of the units listed. Credit from additional units cannot be added to a pathway unless the minimum number of credit for the pathway has been attained.

A - Mandatory units

Credit value required: minimum 42, maximum 42.

F/600/7138 - Conforming to general safety in the workplace

J/600/7139 - Conforming to efficient working practices in the workplace

J/600/7142 - Moving and handling resources in the workplace

Y/600/7100 - Contributing to the piling operation in the workplace

R/600/8102 - Slinging and signalling the movement of loads (secondary role) in the workplace

AD - Additional units

A/600/7851 - Preparing and operating crawler cranes (above 10 tonnes) to lift and transfer loads in the workplace

D/600/7857 - Preparing and operating mobile cranes to lift and transfer loads in the workplace

H/600/7889 - Preparing and operating rough terrain masted forklifts to lift and transfer loads in the workplace

A/600/7915 - Preparing and operating telescopic handlers to lift and transfer loads in the workplace

J/600/7920 - Preparing and operating lorry loaders or knuckle boom cranes to lift and transfer loads in the workplace

L/600/7921 - Preparing and operating skip handlers to lift and transfer loads in the workplace

R/600/7970 - Preparing and operating 360 degree excavators to excavate ground in the workplace

T/600/7976 - Preparing and operating truck-mounted boom concrete pumps to receive, pump and discharge materials in the workplace

A/600/7977 - Preparing and operating forward tipping dumpers to receive, transport and discharge materials in the workplace

R/600/7998 - Preparing and operating rear tipping dump trucks to receive, transport and discharge materials in the workplace

Y/600/8005 - Preparing and operating trailer-mounted concrete pumps to receive, pump and discharge materials in the workplace

K/600/8106 - Erecting and dismantling plant (cranes and rigs) in the workplace

P - Pathways

Sub-components required: minimum 1.

B - Piling Rig Operator (pathway)

Learners must complete all units in Group B1.

This group represents a pathway.

Credit value required: minimum 60.

B1 - Mandatory units

Credit value required: minimum 60.

J/600/7111 - Carrying out checks and/or basic maintenance on plant or machinery in the workplace

M/600/7975 - Operating piling rigs to construct and form in the workplace

C - Piling Operative (pathway)

Learners must complete a minimum of one unit in Group C1.

This group represents a pathway.

Credit value required: minimum 4.

C1 - Optional units (Piling Operative)

Credit value required: minimum 4.

H/600/7083 - Allocating and monitoring the use of plant and equipment in the workplace

L/600/7112 - Carrying out mud, slurry or fluid plant operations in the workplace

K/600/7103 - Carrying out tremie operations in the workplace

J/600/7108 - Guiding the piling rig for the formation of piles in the workplace

T/600/7931 - Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace

L/600/7935 - Preparing and operating wheeled loading shovels to extract loose materials in the workplace

R/600/7936 - Preparing and operating tracked loading shovels to extract ground and loose materials in the workplace

D/600/7938 - Preparing and operating skid steer loaders to extract loose materials in the workplace

K/600/7957 - Preparing and operating 360 degree excavators to extract ground, face and/or loose materials in the workplace

D/600/8099 - Preparing and operating specialised powered tools and equipment in the workplace

How is the qualification graded and assessed?

The overall grade for the qualification is a 'pass'. The learner must achieve all the required units within the specified qualification structure.

To pass a unit the learner must:

- achieve **all** the specified learning outcomes
- satisfy **all** the assessment criteria by providing sufficient and valid evidence for each criterion
- show that the evidence is their own.

The qualification is designed to be assessed:

- in the workplace or
- in conditions resembling the workplace, as specified in the Assessment requirements/strategy for the sector, or
- as part of a training programme.

Assessment Requirements/Strategy

The Assessment Requirements/Strategy for this qualification have been included in *Annexe E*. They have been developed by ConstructionSkills in partnership with employers, training providers, awarding organisations and the regulatory authorities. The Assessment Strategy includes details on:

- criteria for defining realistic working environments
- roles and occupational competence of assessors, expert witnesses, internal verifiers and standards verifiers
- quality control of assessment
- evidence requirements.

Evidence of competence may come from:

- **current practice** where evidence is generated from a current job role
- a **programme of development** where evidence comes from assessment opportunities built into a learning/training programme whether at or away from the workplace
- the **Recognition of Prior Learning (RPL)** where a learner can demonstrate that they can meet the assessment criteria within a unit through knowledge, understanding or skills they already possess without undertaking a course of learning. They must submit sufficient, reliable and valid evidence for internal and standards verification purposes. RPL is acceptable for accrediting a unit, several units or a whole qualification
- a **combination** of these.

It is important that the evidence is:

Valid	relevant to the standards for which competence is claimed
Authentic	produced by the learner
Current	sufficiently recent to create confidence that the same skill, understanding or knowledge persist at the time of the claim
Reliable	indicates that the learner can consistently perform at this level
Sufficient	fully meets the requirements of the standards.

Types of evidence

To successfully achieve a unit the learner must gather evidence which shows that they have met the required standard in the assessment criteria. Evidence can take a variety of different forms including the following examples:

- direct observation of the learner's performance by their assessor
- outcomes from oral or written questioning
- products of the learner's work
- personal statements and/or reflective accounts
- outcomes from simulation, where permitted by the assessment strategy
- professional discussion
- assignment, project/case studies
- authentic statements/witness testimony
- expert witness testimony
- reflective accounts
- evidence of Recognition of Prior Learning.

Learners can use one piece of evidence to prove their knowledge, skills and understanding across different assessment criteria and/or across different units. It is, therefore, not necessary for learners to have each assessment criterion assessed separately. Learners should be encouraged to reference the assessment criteria to which the evidence relates.

Evidence must be made available to the assessor, internal verifier and Edexcel standards verifier. A range of recording documents is available on the Edexcel website (www.edexcel.com). Alternatively, centres may develop their own.

Additional requirements

The Joint Awarding Body and the SSC Working Practices Group have identified additional requirements that are needed to assess and quality assure qualifications placed on the QCF that use NVQ within their title. These requirements are shown in *Annexe D: Additional requirements for qualifications that use the title NVQ within the QCF*.

Centre recognition and approval

Centre recognition

Centres that have not previously offered Edexcel qualifications need to apply for and be granted centre recognition as part of the process for approval to offer individual qualifications. New centres must complete both a centre recognition approval application and a qualification approval application.

Existing centres will be given 'automatic approval' for a new qualification if they are already approved for a qualification that is being replaced by the new qualification and the conditions for automatic approval are met. Centres already holding Edexcel approval are able to gain qualification approval for a different level or different sector via Edexcel online.

Approvals agreement

All centres are required to enter into an approvals agreement which is a formal commitment by the head or principal of a centre to meet all the requirements of the specification and any linked codes or regulations. Edexcel will act to protect the integrity of the awarding of qualifications, if centres do not comply with the agreement. This could result in the suspension of certification or withdrawal of approval.

Quality assurance

Detailed information on Edexcel's quality assurance processes is given in *Annexe B*.

What resources are required?

Each qualification is designed to support learners working in the construction and the built environment sector. Physical resources need to support the delivery of the qualification and the assessment of the learning outcomes and must be of industry standard. Centres must meet any specific resource requirements outlined in *Annexe E: Assessment Requirements/Strategy*. Staff assessing the learner must meet the requirements within the overarching assessment strategy for the sector.

Unit format

Each unit in this specification contains the following sections.

Unit title:					The unit title is accredited on the QCF and this form of words will appear on the learner's Notification of Performance (NOP).
Unit reference number:					This code is a unique reference number for the unit.
QCF level:					All units and qualifications within the QCF have a level assigned to them, which represents the level of achievement. There are nine levels of achievement, from Entry level to level 8. The level of the unit has been informed by the QCF level descriptors and, where appropriate, the NOS and/or other sector/professional.
Credit value:					All units have a credit value. The minimum credit value is one, and credits can only be awarded in whole numbers. Learners will be awarded credits when they achieve the unit.
Guided learning hours:					A notional measure of the substance of a qualification. It includes an estimate of the time that might be allocated to direct teaching or instruction, together with other structured learning time, such as directed assignments, assessments on the job or supported individual study and practice. It excludes learner-initiated private study.
Unit summary:					This provides a summary of the purpose of the unit.
Assessment requirements/evidence requirements:					The assessment/evidence requirements are determined by the SSC. Learners must provide evidence for each of the requirements stated in this section.
Assessment methodology:					This provides a summary of the assessment methodology to be used for the unit.
Learning outcomes:	Assessment criteria:	Evidence type:	Portfolio reference:	Date:	
			The learner should use this box to indicate where the evidence can be obtained eg portfolio page number.	The learner should give the date when the evidence has been provided.	
Learning outcomes state exactly what a learner should know, understand or be able to do as a result of completing a unit.		The assessment criteria of a unit specify the standard a learner is expected to meet to demonstrate that a learning outcome, or a set of learning outcomes, has been achieved.		Learners must reference the type of evidence they have and where it is available for quality assurance purposes. The learner can enter the relevant key and a reference. Alternatively, the learner and/or centre can devise their own referencing system.	

Units

Unit 1: Conforming to general safety in the workplace

Unit reference number: F/600/7138

QCF level: 1

Credit value: 2

Guided learning hours: 7

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in conforming to general safety in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the additional requirements for qualifications using the title NVQ in QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of conforming to general safety in the workplace to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated except for assessment criterion 4.1.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1. Identify hazards associated with the workplace and record and report in accordance with organisational procedures	<p>1.1 report and/or record hazards within the workplace and occupations at work</p> <p>1.2 describe typical hazards associated with the occupational area including noise, resources, environmental, substances and articles, obstructions, storage and work activities</p> <p>1.3 state the methods used for reporting hazards in the workplace</p>			
2. Comply with all workplace safety legislation requirements	<p>2.1 select and wear general personal protective equipment (PPE) in the work environment in accordance with legislation and organisational requirements</p> <p>2.2 state when and why PPE should be used including protective helmets, ear protection, overalls, safety boots and high visibility clothing</p> <p>2.3 adhere with statutory requirements, safety notices and warning notices displayed within the workplace</p> <p>2.4 describe which types of safety notices are relevant to the occupational area</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3. Comply with and maintain all organisational security arrangements and approved procedures	3.1 maintain security of the workplace by following organisational procedures relating to: <ul style="list-style-type: none"> - during the working day - on completion of the day's work - unauthorised personnel (other operatives and the general public) - theft 3.2 explain how security procedures are implemented within the workplace			
4. Comply with all emergency procedures in accordance with organisational policy	4.1 follow organisational procedures for accidents and emergencies associated with the type of work being undertaken and the work environment 4.2 state the types of fire extinguishers available and describe how and when they are used			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(if sampled)

Unit 2: Conforming to efficient working practices in the workplace

Unit reference number: J/600/7139

QCF level: 2

Credit value: 3

Guided learning hours: 10

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in conforming to efficient working practices in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the additional requirements for qualifications using the title NVQ in QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of conforming to efficient working practices to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1. Communicate with others to establish productive working relationships	1.1 communicate with colleagues and/or clients to ensure that the work is carried out efficiently 1.2 explain different methods of communicating with line managers, co-workers and clients 1.3 give reasons for using certain methods of communication for particular job activities 1.4 describe the reasons for communicating efficiently and effectively, and the consequences of poor communication			
2. Follow organisational procedures to maintain good work relationships	2.1 carry out work in conjunction with other workers and maintain harmonised relationships 2.2 explain how organisational work procedures are applied to maintain good working relationships with line managers, co-workers and clients 2.3 state the reasons for effective working relationships with line managers, co-workers and clients 2.4 describe the consequences for efficient working if relationships with line managers, co-workers and clients are poor			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3. Maintain appropriate records in accordance with the organisational procedures	3.1 complete relevant documentation according to the occupation in accordance with organisational procedures 3.2 describe how to maintain documentation in accordance with organisational procedures relating to: - job cards - worksheets - material/resource lists - time sheets 3.3 explain the reasons for ensuring documentation is completed clearly and within given timescales			

Learner name: _____ Date: _____
 Learner signature: _____ Date: _____
 Assessor signature: _____ Date: _____
 Internal verifier signature: _____ Date: _____
 (if sampled)

Unit 3: Moving and handling resources in the workplace

Unit reference number: J/600/7142

QCF level: 2

Credit value: 5

Guided learning hours: 17

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in moving and handling resources in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with: the Additional Requirements for Qualifications using the title NVQ in QCF

- the ConstructionSkills `Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of moving and handling resources to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Know how to comply with given information when moving and storing resources</p>	<p>1.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - on site, below ground level, at height, with tools and equipment, with materials and substances and by manual handling and mechanical lifting <p>1.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>1.3 state what the accident reporting procedures are and who is responsible for making the reports</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Maintain safe working practices when moving and handling resources</p>	<p>2.1 use personal protective equipment (PPE) safely to carry out the activity in accordance with legislation and organisational requirements when moving and handling resources</p> <p>2.2 explain why and when personal protective equipment (PPE) should be used, relating to moving and handling resources, and the types, purpose and limitations of each type</p> <p>2.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p> <p>2.4 state the types of fire extinguishers available and describe how and when they are used</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>3. Select the resources to be stored and ensure they conform to the given information</p>	<p>3.1 describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> - materials, components, fixings, fittings and ancillary items - hand and/or powered tools and equipment - internally or externally supplied <p>3.2 select the resources to be moved and/or stored for own work and that of the team, in relation to materials, components, fixings, tools and equipment</p> <p>3.3 state how the resources should be handled and how problems associated with the resources are reported</p> <p>3.4 state why organisational procedures are developed and how they are used</p> <p>3.5 outline potential hazards associated with the resources and method of work</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Comply with the given information to prevent damage to the product and surrounding environment when moving and handling resources</p>	<p>4.1 protect the product and the surrounding area from damage</p> <p>4.2 minimise damage and maintain a clean work space</p> <p>4.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>4.4 dispose of waste packaging in accordance with legislation</p> <p>4.5 state why the disposal of waste should be carried out in relation to the work and how it is achieved</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Comply with the given product information to move and handle resources to the required guidance</p>	<p>5.1 demonstrate the following work skills when moving and handling resources:</p> <ul style="list-style-type: none"> - moving, positioning, securing and using lifting aids and kinetic lifting techniques <p>5.2 handle and store occupational resources to meet product information and/or organisational requirements relating to at least three of the following:</p> <ul style="list-style-type: none"> - sheet material - loose material - bagged or wrapped material - fragile material - components - liquid material <p>5.3 describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, for:</p> <ul style="list-style-type: none"> - manual handling and storage - maintenance of lifting aids <p>5.4 safely use and store lifting aids and equipment</p> <p>5.5 state the needs of other occupations when moving and handling resources</p>			

Learner name: _____
Learner signature: _____
Assessor signature: _____
Internal verifier signature: _____
(if sampled)

Date: _____
Date: _____
Date: _____
Date: _____

Unit 4: Contributing to the piling operation in the workplace

Unit reference number: Y/600/7100

QCF level: 2

Credit value: 24

Guided learning hours: 80

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in contributing to the piling operation in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the Additional Requirements for Qualifications using the title NVQ in QCF
- the ConstructionSkills `Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of contributing to the piling operation to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated except for assessment criterion 3.4.

This unit must be assessed against one of the following endorsements:

- Sheet piling
- Driven piling
- Continuous flight auger piling
- Rotary piling
- Tripod piling
- Vibro piling
- Diaphragm walling
- Mini piling

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the work and resources when contributing to the piling operation</p>	<p>1.1 interpret and extract information from drawings, instructions, method statements, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statement</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, instructions, specifications, method statements, schedules and manufacturers' information 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Know how to comply with relevant legislation and official guidance when contributing to the piling operation</p>	<p>2.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>2.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>2.3 state what the accident reporting procedures are and who is responsible for making reports</p> <p>2.4 state the types of fire extinguishers available when contributing to piling operations and describe how and when they are used</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>3. Maintain safe working practices when contributing to the piling operation</p>	<p>3.1 use personal protective equipment (PPE) safely to carry out the activity in accordance with legislation and organisational requirements when contributing to the piling operation</p> <p>3.2 explain why and when personal protective equipment (PPE) should be used, relating to contributing to the piling operation, and the types, purpose and limitations of each type</p> <p>3.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p> <p>3.4 demonstrate the safe use of a fire extinguisher relevant to a typical fire associated with piling operations</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Select the required quantity and quality of resources for the methods of work to contribute to the piling operation</p>	<p>4.1 describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> - piles - hand and/or powered tools, machinery and ancillary equipment <p>4.2 select resources associated with own work in relation to materials, components, fixings, machinery, tools and equipment</p> <p>4.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>4.4 outline potential hazards associated with the resources and method of work</p> <p>4.5 describe how to calculate quantity, length, area and wastage associated with the method/procedure to contribute to the piling operation</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Minimise the risk of damage to the work and surrounding area when contributing to the piling operation</p>	<p>5.1 protect the work and its surrounding area from damage</p> <p>5.2 minimise damage and maintain a clean work space</p> <p>5.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, others involved with the work and adverse weather conditions</p> <p>5.4 dispose of waste in accordance with legislation</p> <p>5.5 state why the disposal of waste should be carried out in relation to the work</p>			
<p>6. Complete the work within the allocated time when contributing to the piling operation</p>	<p>6.1 demonstrate completion of the work within the allocated time</p> <p>6.2 state the purpose of the work programme and explain why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the work programme 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>7. Comply with the given contract information to contribute to the piling operation to the required specification</p>	<p>7.1 demonstrate the following work skills when contributing to the piling operation:</p> <ul style="list-style-type: none"> - measuring, communicating, preparing, positioning, fitting, securing, removing, cleaning and maintaining <p>7.2 install or contribute to the installation of bored and/or driven piles and/or specialist works to given working instructions using one or more of the following piling methods:</p> <ul style="list-style-type: none"> - sheet - driven - continuous flight auger - rotary - tripod - vibro - diaphragm walling 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.3 describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> - install or contribute to the installation of piles using one or more of the following piling methods: - sheet - driven - continuous flight auger - rotary - tripod - vibro - diaphragm walling - use hand tools, machinery and ancillary equipment <p>7.4 safely use and store hand tools, machinery and ancillary equipment</p> <p>7.5 state the needs of other occupations and how to communicate within a team when contributing to the piling operation</p> <p>7.6 describe how to maintain the tools, machinery and equipment used when contributing to the piling operation</p>			

Learner name: _____
Learner signature: _____
Assessor signature: _____
Internal verifier signature: _____
(if sampled)

Date: _____
Date: _____
Date: _____
Date: _____

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of slinging and signalling the movement of loads to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1. Interpret the given information relating to the preparation for and the slinging and signalling of loads	<p>1.1 interpret and extract information from drawings, specifications, schedules, method statements and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, method statements, manufacturers' information, approved procedures and Codes of Practice 			
2. Organise with others the sequence and operation in which the slinging and signalling of loads is to be carried out	<p>2.1 organise the work according to given information or instructions</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations</p> <p>2.4 state how to organise resources prior to and when slinging and signalling of loads</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>3. Know how to comply with relevant legislation and official guidance to carry out slinging and signalling of loads</p> <p>4. Maintain safe working practices when preparing for and slinging and signalling loads</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports</p> <p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements when slinging and signalling of loads</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to slinging and signalling of loads, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Select the required quantity and quality of resources to prepare for and when slinging and signalling loads</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - lifting accessories - signalling and communication equipment - hand tools and ancillary equipment <p>5.2 select resources associated with slinging/signalling in relation to hand tools, attachments, slinging equipment, lifting aids/accessories, signalling and communication equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate weight, bearing pressure, quantity, length and area associated with the method/procedures to carry out slinging/signalling</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when slinging and signalling loads</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when preparing to and slinging and signalling loads</p>	<p>7.1 demonstrate completion of the work within the allocated time</p> <p>7.2 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to prepare to and sling and signal loads for movement to the required specification</p>	<p>8.1 demonstrate the following work skills when preparing to and slinging and signalling loads:</p> <ul style="list-style-type: none"> - measuring, gauging, estimating, fitting, fixing, testing, balancing, interpreting, judging, explaining, preparing, indicating, informing, instructing, signing, positioning, adjusting, configuring, moving, securing, signalling, relaying and removing <p>8.2 prepare to and attach loads to lifting equipment, and guide loads using signals to the required destination to given working instructions using appropriate load securing methods and lifting accessories</p>			
	<p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - confirm method of communication - determine the method of slinging - select and use suitable slinging equipment/lifting accessories - sling loads securely and balance within correct weight distribution following agreed/recognised operational procedures - position loads safely and securely - remove and store lifting accessories - use hand tools, ancillary equipment and accessories 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.4 safely use and store hand tools and slinging, signalling, communication and ancillary equipment 8.5 state the needs of other occupations and how to communicate within a team when preparing to and slinging and signalling loads 8.6 describe how to maintain the tools and equipment used to sling and signal loads			

Learner name: _____ Date: _____
 Learner signature: _____ Date: _____
 Assessor signature: _____ Date: _____
 Internal verifier signature: _____ Date: _____
 (if sampled)

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the use of crawler cranes to lift, transfer and place loads</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information, method statements and regulations and guidance applicable to crawler crane operations 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Organise with others the sequence and operation in which lifting operations using crawler cranes are to be carried out</p>	<p>2.1 organise the work according to given information or instructions</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations</p> <p>2.4 state how to organise resources prior to and during lifting operations with crawler cranes</p>			
<p>3. Know how to comply with relevant legislation and official guidance when carrying out lifting operations</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Maintain safe working practices when preparing for and carrying out lifting operations using crawler cranes</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during lifting operations</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to crawler crane use, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using crawler cranes</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments and lifting aids - hand tools, ancillary equipment and/or accessories <p>5.2 request and select resources associated with crawler cranes in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate weight, bearing pressure, length and area associated with the method/procedures to carry out lifting operations with crawler cranes</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when lifting and transferring loads</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when preparing to and lifting and transferring loads</p>	<p>7.1 demonstrate completion of the work within the allocated time</p> <p>7.2 shut down and secure crawler cranes</p> <p>7.3 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to lift, transfer and place loads using crawler cranes to the required specification</p>	<p>8.1 demonstrate the following work skills when preparing for, lifting, transferring and placing loads using crawler cranes:</p> <ul style="list-style-type: none"> - fitting, attaching, setting up, securing, adjusting, checking, removing, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down <p>8.2 prepare, set up and operate crawler cranes above 10 tonnes to lift, transfer and place a variety of loads in the workplace, to given working instructions</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the crane for the lifting operation - carry out performance checks - prepare, set up and adjust for operational requirements - complete functional checks - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - operate and move (where applicable) the crane - identify characteristics, type, weight and positioning of loads for lifting and transferring - secure and balance loads for lifting - lift, remove and transfer loads - position, place and set down loads - confirm load stability and security - shut down the crane - use hand tools, ancillary equipment and accessories 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.4 safely use and store hand tools and ancillary equipment 8.5 state the needs of other occupations and how to communicate within a team when preparing for and lifting and transferring loads 8.6 describe how to maintain the plant, tools and equipment used to lift and transfer loads			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(if sampled)

This unit must be assessed against one of the following endorsements:

- Mobile cranes – block duties
- Mobile cranes – pick and carry duties
- Mobile cranes – all duties.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the use of mobile cranes to lift, transfer and place loads</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information, method statements and regulations and guidance applicable to mobile crane operations 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Organise with others the sequence and operation in which lifting operations using mobile cranes are to be carried out</p>	<p>2.1 organise the work according to given information or instructions</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations</p> <p>2.4 state how to organise resources prior to and during lifting operations with mobile cranes</p>			
<p>3. Know how to comply with relevant legislation and official guidance when carrying out lifting operations</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Maintain safe working practices when preparing for and carrying out lifting operations using mobile cranes</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during lifting operations</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to mobile crane use, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using mobile cranes</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments and lifting aids - hand tools, ancillary equipment and/or accessories <p>5.2 request and select resources associated with mobile cranes in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate weight, bearing pressure, length and area associated with the method/procedures to carry out lifting operations with mobile cranes</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when lifting and transferring loads</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when preparing to and lifting and transferring loads</p>	<p>7.1 demonstrate completion of the work within the allocated time</p> <p>7.2 shut down and secure mobile cranes</p> <p>7.3 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to lift, transfer and place loads using mobile cranes to the required specification</p>	<p>8.1 demonstrate the following work skills when preparing for, lifting, transferring and placing loads using mobile cranes:</p> <ul style="list-style-type: none"> - fitting, attaching, setting up, securing, adjusting, checking, removing, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down <p>8.2 prepare, set up and operate mobile cranes to lift, transfer and place a variety of loads in the workplace, to given working instructions</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the crane for the lifting operation - carry out performance checks - prepare, set up and adjust for operational requirements - complete functional checks - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - operate and move (where applicable) the crane - identify characteristics, type, weight and positioning of loads for lifting and transferring - secure and balance loads for lifting - lift, remove and transfer loads - position, place and set down loads - confirm load stability and security - shut down the crane - use hand tools, ancillary equipment and accessories 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.4 safely use and store hand tools and ancillary equipment 8.5 state the needs of other occupations and how to communicate within a team when preparing for and lifting and transferring loads 8.6 describe how to maintain the plant, tools and equipment used to lift and transfer loads.			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(if sampled)

Unit 8: Preparing and operating rough terrain masted forklifts to lift and transfer loads in the workplace

Unit reference number: H/600/7889

QCF level: 2

Credit value: 18

Guided learning hours: 60

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating rough terrain masted forklifts to lift and transfer loads in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the additional requirements for qualifications using the title NVQ in QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of preparing and operating rough terrain masted forklifts to lift and transfer loads to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the use of rough terrain masted forklifts to lift, transfer and place loads</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information, method statements and regulations and guidance applicable to rough terrain masted forklift operations 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Organise with others the sequence and operation in which rough terrain masted forklift operations are to be carried out</p>	<p>2.1 organise the work according to given information or instructions</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations</p> <p>2.4 state how to organise resources prior to and during forklift operations</p>			
<p>3. Know how to comply with relevant legislation and official guidance when carrying out lifting and transferring loads with rough terrain masted forklifts</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Maintain safe working practices when preparing for and carrying out forklift operations with rough terrain masted types</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during rough terrain masted forklift operations</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to rough terrain masted forklift use, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to prepare for and carry out forklift operations with rough terrain masted types</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments and lifting aids - hand tools, ancillary equipment and/or accessories <p>5.2 request and select resources associated with rough terrain masted forklifts in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate weight, bearing pressure, length and area associated with the method/procedures to lift and transfer loads using rough terrain masted forklifts</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when lifting and transferring loads</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when preparing to and lifting and transferring loads</p>	<p>7.1 demonstrate completion of the work within the allocated time</p> <p>7.2 shut down and secure rough terrain masted forklifts</p> <p>7.3 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to lift, transfer and place loads using rough terrain masted forklifts to the required specification</p>	<p>8.1 demonstrate the following work skills when preparing for, lifting, transferring and placing loads using rough terrain masted forklifts:</p> <ul style="list-style-type: none"> - fitting, attaching, setting up, securing, adjusting, checking, removing, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down <p>8.2 prepare and operate rough terrain masted forklift to lift, transfer and place a variety of loads in the workplace, to given working instructions</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the machine for the forklift operation - carry out performance checks - prepare, set up and adjust for operational requirements - complete functional checks - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - operate and move the rough terrain masted forklift - identify characteristics, type, weight and positioning of loads for lifting and transferring - secure and balance loads for lifting - lift, remove and transfer loads - position, place and set down loads - confirm load stability and security - shut down the rough terrain masted forklift - use hand tools, ancillary equipment and accessories 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.4 safely use and store hand tools and ancillary equipment 8.5 state the needs of other occupations and how to communicate within a team when preparing for and lifting and transferring loads 8.6 describe how to maintain the plant, tools and equipment used to lift and transfer loads			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(if sampled)

This unit must be assessed against one of the following endorsements:

- Telescopic handlers – industrial telescopic
- Telescopic handlers – up to 9 metres
- Telescopic handlers – all sizes excluding 360 degree
- Telescopic handlers – all sizes including 360 degree.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the use of telescopic handlers to lift, transfer and place loads</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information, method statements and regulations and guidance applicable to telescopic handler operations 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Organise with others the sequence and operation in which telescopic handlers operations are to be carried out</p>	<p>2.1 organise the work according to given information or instructions</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations</p> <p>2.4 state how to organise resources prior to and during telescopic handler operations</p>			
<p>3. Know how to comply with relevant legislation and official guidance when lifting and transferring loads</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Maintain safe working practices when preparing for and carrying out telescopic handler operations</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during telescopic handler operations</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to telescopic handler use, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to prepare for and carry out telescopic handler operations</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments and lifting aids - hand tools, ancillary equipment and/or accessories <p>5.2 request and select resources associated with telescopic handlers in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate weight, length and area associated with the method/procedures to lift and transfer loads using telescopic handlers</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when lifting and transferring loads</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when preparing to and lifting and transferring loads</p>	<p>7.1 demonstrate completion of the work within the allocated time</p> <p>7.2 shut down and secure telescopic handlers</p> <p>7.3 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to lift, transfer and place loads using telescopic handlers to the required specification</p>	<p>8.1 demonstrate the following work skills when preparing for, lifting, transferring and placing loads using telescopic handlers:</p> <ul style="list-style-type: none"> - fitting, attaching, setting up, securing, adjusting, checking, removing, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down <p>8.2 prepare, set up and operate telescopic handlers to lift, transfer and place a variety of loads in the workplace, to given working instructions</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the telescopic handler for the lifting operation - carry out performance checks - prepare, set up and adjust for operational requirements - complete functional checks - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - operate and move the tele-handler - identify characteristics, type, weight and positioning of loads for lifting and transferring - secure and balance loads for lifting - lift, remove and transfer loads - position, place and set down loads - confirm load stability and security - shut down the tele-handler - use hand tools, ancillary equipment and accessories 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.4 safely use and store hand tools and ancillary equipment 8.5 state the needs of other occupations and how to communicate within a team when preparing for and lifting and transferring loads 8.6 describe how to maintain the plant, tools and equipment used to lift and transfer loads			

Learner name: _____ Date: _____
 Learner signature: _____ Date: _____
 Assessor signature: _____ Date: _____
 Internal verifier signature: _____ Date: _____
 (if sampled)

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the use of lorry loaders/knuckle boom cranes to lift, transfer and place loads</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information, method statements and regulations and guidance applicable to lorry loader/knuckle boom crane operations 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Organise with others the sequence and operation in which lifting operations using lorry loaders/knuckle boom cranes are to be carried out</p>	<p>2.1 organise the work according to given information or instructions</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations</p> <p>2.4 state how to organise resources prior to and during lifting operations with lorry loaders/knuckle boom cranes</p>			
<p>3. Know how to comply with relevant legislation and official guidance when carrying out lifting operations</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Maintain safe working practices when preparing for and carrying out lifting operations using lorry loaders/knuckle boom cranes</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during lifting operations</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to lorry loader/knuckle boom crane use, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using lorry loaders/knuckle boom cranes</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments and lifting aids - hand tools, ancillary equipment and/or accessories <p>5.2 request and select resources associated with lorry loaders/knuckle boom cranes in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate weight, bearing pressure, length and area associated with the method/procedures to carry out lifting operations with lorry loaders/knuckle boom cranes</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when lifting and transferring loads</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when preparing to and lifting and transferring loads</p>	<p>7.1 demonstrate completion of the work within the allocated time</p> <p>7.2 shut down and secure lorry loader/knuckle boom crane</p> <p>7.3 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to lift, transfer and place loads using lorry loaders/knuckle boom cranes to the required specification</p>	<p>8.1 demonstrate the following work skills when preparing for, lifting, transferring and placing loads using lorry loaders/knuckle boom cranes:</p> <ul style="list-style-type: none"> - fitting, attaching, setting up, securing, adjusting, checking, removing, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down <p>8.2 prepare, set up and operate lorry loaders/knuckle boom cranes to lift, transfer and place a variety of loads in the workplace, to given working instructions</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the crane for the lifting operation - carry out performance checks - prepare, set up and adjust for operational requirements - complete functional checks - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - operate and move (where applicable) the crane - identify characteristics, type, weight and positioning of loads for lifting and transferring - secure and balance loads for lifting - lift, remove and transfer loads - position, place and set down loads - confirm load stability and security - shut down the crane - use hand tools, ancillary equipment and accessories 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.4 safely use and store hand tools and ancillary equipment 8.5 state the needs of other occupations and how to communicate within a team when preparing for and lifting and transferring loads 8.6 describe how to maintain the plant, tools and equipment used to lift and transfer loads			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(if sampled)

Unit 11: Preparing and operating skip handlers to lift and transfer loads in the workplace

Unit reference number: L/600/7921

QCF level: 2

Credit value: 18

Guided learning hours: 60

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating skip handlers to lift and transfer loads in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the additional requirements for qualifications using the title NVQ in QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of preparing and operating skip handlers to lift and transfer loads to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the use of skip handlers to lift, transfer and place loads</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information, method statements and regulations and guidance applicable to skip handler operations 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Organise with others the sequence and operation in which lifting operations using skip handlers are to be carried out</p>	<p>2.1 organise the work according to given information or instructions</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations</p> <p>2.4 state how to organise resources prior to and during lifting operations with skip handlers</p>			
<p>3. Know how to comply with relevant legislation and official guidance when carrying out lifting operations</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Maintain safe working practices when preparing for and carrying out lifting operations using skip handlers</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during lifting operations</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to skip handler use, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using skip handlers</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments and lifting aids - hand tools, ancillary equipment and/or accessories <p>5.2 request and select resources associated with skip handlers in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate weight, bearing pressure, length and area associated with the method/procedures to carry out lifting operations with skip handlers</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when lifting and transferring loads</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when preparing to and lifting and transferring loads</p>	<p>7.1 demonstrate completion of the work within the allocated time</p> <p>7.2 shut down and secure skip handlers</p> <p>7.3 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to lift, transfer and place loads using skip handlers to the required specification.</p>	<p>8.1 demonstrate the following work skills when preparing for, lifting, transferring and placing loads using skip handlers:</p> <ul style="list-style-type: none"> - fitting, attaching, setting up, securing, adjusting, checking, removing, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down. <p>8.2 prepare, set up and operate skip handlers to lift, transfer and place a variety of loads in the workplace, to given working instruction</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the skip handler for the lifting operation - carry out performance checks - prepare, set up and adjust for operational requirements - complete functional checks - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - operate and move (where applicable) the skip handler - identify characteristics, type, weight and positioning of loads for lifting and transferring - secure and balance loads for lifting - lift, remove and transfer loads - position, place and set down loads - confirm load stability and security - shut down the skip handler - use hand tools, ancillary equipment and accessories. 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.4 safely use and store hand tools and ancillary equipment. 8.5 state the needs of other occupations and how to communicate within a team when preparing for and lifting and transferring loads. 8.6 describe how to maintain the plant, tools and equipment used to lift and transfer loads.			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(if sampled)

Unit 12: Preparing and operating 360 degree excavators to excavate ground in the workplace

Unit reference number: R/600/7970

QCF level: 2

Credit value: 80

Guided learning hours: 267

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating 360 degree excavators to excavate ground in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the additional requirements for qualifications using the title NVQ in QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of preparing and operating 360 degree excavators to excavate ground to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against one of the following endorsements:

- 360 degree Excavator – below 10 tonne tracked
- 360 degree Excavator – below 10 tonne wheeled
- 360 degree Excavator – above 10 tonne tracked
- 360 degree Excavator – above 10 tonne wheeled.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the use of 360 degree excavators to carry out excavating operations.</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information.</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements.</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented.</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information, method statements and regulations and guidance applicable to excavating operations. 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Organise with others the sequence and operation in which excavating operations using 360 degree excavators are to be carried out.</p>	<p>2.1 organise the work according to given information or instructions.</p> <p>2.2 describe how to communicate ideas between team members.</p> <p>2.3 organise and communicate with team members and other associated occupations.</p> <p>2.4 state how to organise resources prior to and during excavating operations using 360 degree excavators.</p>			
<p>3. Know how to comply with relevant legislation and official guidance to carry out excavating operations with 360 degree excavators.</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting. <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports.</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Maintain safe working practices when preparing for and carrying out excavating operations using 360 degree excavators.</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during excavating operations</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to excavating operations, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to prepare for and carry out excavating operations using 360 degree excavators</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments and excavation aids - hand tools, ancillary equipment and/or accessories <p>5.2 request and select resources associated with 360 degree excavators in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate quantity, weight, length and area associated with the method/procedures to carry out excavating operations using 360 degree excavators</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when excavating materials using 360 degree excavators</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when preparing to and excavating materials using 360 degree excavators</p>	<p>7.1 demonstrate completion of the work within the allocated time</p> <p>7.2 shut down and secure 360 degree excavators</p> <p>7.3 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to excavate materials using 360 degree excavators to the required specification</p>	<p>8.1 demonstrate the following work skills when preparing for and excavating ground using 360 degree excavators:</p> <ul style="list-style-type: none"> - fitting, attaching, setting up, securing, adjusting, checking, removing, communicating, operating, manoeuvring, positioning, excavating, forming, and loading <p>8.2 prepare, position, set up and operate 360 degree excavators to given working instructions</p> <ul style="list-style-type: none"> - excavate a variety of ground - load and/or stockpile excavated loose materials 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the 360 degree excavators used for the excavation work - carry out performance checks - prepare, set up and adjust for operational requirements - complete functional checks - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - identify the area to be excavated - check to avoid damage to structures and utilities service apparatus - excavate, remove and load materials safely and securely - form stockpiles - shut down and secure 360 degree excavator - use hand tools, ancillary equipment and accessories 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.4 safely use and store hand tools and ancillary equipment			
	8.5 state the needs of other occupations and how to communicate within a team when preparing to and carrying out excavating operations			
	8.6 describe how to maintain the plant, tools and equipment used to excavate materials			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(if sampled)

Unit 13: **Preparing and operating truck-mounted boom concrete pumps to receive, pump and discharge materials in the workplace**

Unit reference number: T/600/7976

QCF level: 2

Credit value: 70

Guided learning hours: 233

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating truck-mounted boom concrete pumps to pump and discharge materials in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the additional requirements for qualifications using the title NVQ in QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of preparing and operating truck-mounted boom concrete pumps to pump and discharge materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the use of concrete pumps to carry out pumping and discharging operations</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information, method statements and regulations and guidance applicable to concrete pumping operations 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Organise with others the sequence and operation in which pumping and discharging operations using concrete pumps are to be carried out</p>	<p>2.1 organise the work according to given information or instructions</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations</p> <p>2.4 state how to organise resources prior to and during concrete pumping operations</p>			
<p>3. Know how to comply with relevant legislation and official guidance to carry out pumping operations with concrete pumps</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Maintain safe working practices when preparing for and carrying out pumping operations using concrete pumps</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during concrete pumping operations</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to concrete pumping operations, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to prepare for and carry out pumping operations using concrete pumps</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments, pumping and discharging aids - hand tools, ancillary equipment and/or accessories <p>5.2 request and select resources associated with concrete pumps in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate quantity, weight, length and area associated with the method/procedures to carry out concrete pumping operations</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when pumping materials using concrete pumps</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when preparing to and pumping and discharging materials using concrete pumps</p>	<p>7.1 demonstrate completion of the work within the allocated time</p> <p>7.2 shut down and secure concrete pumps</p> <p>7.3 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to receive, pump and discharge materials using concrete pumps to the required specification</p>	<p>8.1 demonstrate the following work skills when preparing for and pumping and discharging materials using concrete pumps:</p> <ul style="list-style-type: none"> - fitting, attaching, setting up, securing, adjusting, checking, removing, communicating, operating, manoeuvring, positioning, receiving, pumping, discharging and cleaning <p>8.2 prepare, position, set up and operate truck-mounted boom concrete pumps to receive, pump and discharge materials, at various locations, to given working instructions</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the concrete pumps used for pumping and discharging work - carry out performance checks - prepare, set up and adjust for operational requirements - complete functional checks - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - identify the area for pumping - check to avoid damage to structures and utilities service apparatus - receive and pump materials safely and securely - shut down and secure concrete pumps - use hand tools, ancillary equipment and accessories 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.4 safely use and store hand tools and ancillary equipment			
	8.5 state the needs of other occupations and how to communicate within a team when preparing to and carrying out pumping and discharging operations			
	8.6 describe how to maintain the plant, tools and equipment used to pump materials			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(if sampled)

This unit must be assessed against one of the following endorsements:

- Forward tipping dumper – wheeled
- Forward tipping dumper – tracked.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the use of forward tipping dumpers to carry out transporting and discharging operations</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information, method statements and regulations and guidance applicable to grader transporting and discharging operations 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Organise with others the sequence and operation in which transporting and discharging operations using forward tipping dumpers are to be carried out</p>	<p>2.1 organise the work according to given information or instructions</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations</p> <p>2.4 state how to organise resources prior to and during transporting and discharging operations using forward tipping dumpers</p>			
<p>3. Know how to comply with relevant legislation and official guidance to carry out transporting and discharging operations with forward tipping dumpers</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Maintain safe working practices when preparing for and carrying out transporting and discharging operations using forward tipping dumpers</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during transporting and discharging operations</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to transporting and discharging operations, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to prepare for and carry out transporting and discharging operations using forward tipping dumpers</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments, transporting and discharging aids - hand tools, ancillary equipment and/or accessories <p>5.2 request and select resources associated with forward tipping dumpers in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate quantity, weight, length and area associated with the method/procedures to carry out transporting and discharging operations using forward tipping dumpers</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when transporting and discharging materials using forward tipping dumpers</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when preparing to and transporting and discharging materials using forward tipping dumpers</p>	<p>7.1 demonstrate completion of the work within the allocated time</p> <p>7.2 shut down and secure forward tipping dumpers</p> <p>7.3 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to receive, transport and discharge materials using forward tipping dumpers to the required specification</p>	<p>8.1 demonstrate the following work skills when preparing for and transporting and discharging loose materials using forward tipping dumpers:</p> <ul style="list-style-type: none"> - fitting, attaching, setting up, securing, adjusting, checking, removing, communicating, operating, manoeuvring, positioning, receiving, transporting and depositing <p>8.2 prepare, position, set up and operate forward tipping dumpers to receive, transport and discharge loads to given working instructions</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the forward tipping dumper used for transporting and discharging work - carry out performance checks - prepare, set up and adjust for operational requirements - complete functional checks - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - identify the area for discharging - check to avoid damage to structures and utilities service apparatus - receive, transport and discharge materials safely and securely - shut down and secure forward tipping dumper - use hand tools, ancillary equipment and accessories 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.4 safely use and store hand tools and ancillary equipment</p> <p>8.5 state the needs of other occupations and how to communicate within a team when preparing to and carrying out transporting and discharging operations</p> <p>8.6 describe how to maintain the plant, tools and equipment used to transport and discharge materials</p>			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 15: Preparing and operating rear tipping dump trucks to receive, transport and discharge materials in the workplace

Unit reference number: R/600/7998

QCF level: 2

Credit value: 30

Guided learning hours: 100

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating rear tipping dump trucks to transport and discharge materials in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the additional requirements for qualifications using the title NVQ in QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of preparing and operating rear tipping dump trucks to transport and discharge materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against one of the following endorsements:

- Dump truck – articulated chassis – up to 15 tonnes
- Dump truck – articulated chassis – all sizes
- Dump truck – rigid chassis – up to 15 tonnes
- Dump truck – rigid chassis – up to 50 tonne
- Dump truck – rigid chassis – above 50 tonnes.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the use of rear tipping dump trucks to carry out transporting and discharging operations</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information, method statements and regulations and guidance applicable to dump trucks transporting and discharging operations 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Organise with others the sequence and operation in which transporting and discharging operations using rear tipping dump trucks are to be carried out</p>	<p>2.1 organise the work according to given information or instructions</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations</p> <p>2.4 state how to organise resources prior to and during transporting and discharging operations using rear tipping dump trucks</p>			
<p>3. Know how to comply with relevant legislation and official guidance to carry out transporting and discharging operations with rear tipping dump trucks</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Maintain safe working practices when preparing for and carrying out transporting and discharging operations using rear tipping dump trucks</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during transporting and discharging operations</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to transporting and discharging operations, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to prepare for and carry out transporting and discharging operations using rear tipping dump trucks</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments and transport and discharging aids - hand tools, ancillary equipment and/or accessories <p>5.2 request and select resources associated with rear tipping dump trucks in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate quantity, weight, length and area associated with the method/procedures to carry out transporting and discharging operations using rear tipping dump trucks</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when transporting and discharging materials using rear tipping dump trucks</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when preparing to and transporting and discharging materials using rear tipping dump trucks</p>	<p>7.1 demonstrate completion of the work within the allocated time</p> <p>7.2 shut down and secure rear tipping dump trucks</p> <p>7.3 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to receive, transport and discharge materials using rear tipping dump trucks to the required specification</p>	<p>8.1 demonstrate the following work skills when preparing for and transporting and discharging materials using rear tipping dump trucks:</p> <ul style="list-style-type: none"> - fitting, attaching, setting up, securing, adjusting, checking, removing, communicating, operating, manoeuvring, positioning, receiving, transporting and discharging <p>8.2 prepare, position, set up and operate rear tipping dump trucks to receive, transport and discharge materials to given working instructions</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the rear tipping dump truck used for transporting and discharging work - carry out performance checks - prepare, set up and adjust for operational requirements - complete functional checks - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - identify the area for discharging - check to avoid damage to structures and utilities service apparatus - receive, transport and discharge materials safely and securely - shut down and secure rear tipping dump trucks - use hand tools, ancillary equipment and accessories 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.4 safely use and store hand tools and ancillary equipment 8.5 state the needs of other occupations and how to communicate within a team when preparing to and carrying out transporting and discharging operations 8.6 describe how to maintain the plant, tools and equipment used to transport and discharge materials			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____

(if sampled)

Unit 16: Preparing and operating trailer-mounted concrete pumps to receive, pump and discharge materials in the workplace

Unit reference number: Y/600/8005

QCF level: 2

Credit value: 18

Guided learning hours: 60

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating trailer-mounted concrete pumps to pump and discharge materials in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the additional requirements for qualifications using the title NVQ in QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of preparing and operating trailer-mounted concrete pumps to pump and discharge materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the use of concrete pumps to carry out pumping and discharging operations</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information, method statements and regulations and guidance applicable to concrete pumping operations 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Organise with others the sequence and operation in which concrete pumping operations using concrete pumps are to be carried out</p>	<p>2.1 organise the work according to given information or instructions</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations</p> <p>2.4 state how to organise resources prior to and during concrete pumping operations</p>			
<p>3. Know how to comply with relevant legislation and official guidance to carry out concrete pumping operations with concrete pumps</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Maintain safe working practices when preparing for and carrying out pumping operations using concrete pumps</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during concrete pumping operations</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to concrete pumping operations, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to prepare for and carry out pumping operations using concrete pumps</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments, pumping and discharging aids - hand tools, ancillary equipment and/or accessories <p>5.2 request and select resources associated with concrete pumps in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate quantity, weight, length and area associated with the method/procedures to carry out concrete pumping operations</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when pumping materials using concrete pumps</p>	<p>6.1 protect the work and its surrounding area from damage.</p> <p>6.2 minimise damage and maintain a clean work space.</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.</p> <p>6.4 dispose of waste in accordance with legislation.</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work.</p>			
<p>7. Complete the work within the allocated time when preparing to and pumping and discharging materials using concrete pumps.</p>	<p>7.1 demonstrate completion of the work within the allocated time.</p> <p>7.2 shut down and secure trailer-mounted concrete pumps.</p> <p>7.3 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation. 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to receive, pump and discharge materials using concrete pumps to the required specification.</p>	<p>8.1 demonstrate the following work skills when preparing for and pumping and discharging materials using concrete pumps</p> <ul style="list-style-type: none"> - fitting, attaching, setting up, securing, adjusting, checking, removing, communicating, operating, manoeuvring, positioning, receiving, pumping, discharging and cleaning. <p>8.2 prepare, position, set up, check the positioning of and operate trailer-mounted concrete pumps to receive, pump and discharge materials, at various locations, to given working instructions.</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the concrete pumps used for pumping and discharging work - carry out performance checks - prepare, set up and adjust for operational requirements - complete functional checks - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - identify the area for pumping - check to avoid damage to structures and utilities service apparatus - receive and pump materials safely and securely - shut down and secure concrete pumps - use hand tools, ancillary equipment and accessories 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.4 safely use and store hand tools and ancillary equipment. 8.5 state the needs of other occupations and how to communicate within a team when preparing to and carrying out pumping and discharging operations. 8.6 describe how to maintain the plant, tools and equipment used to pump and discharge materials.			

Learner name: _____ Date: _____
 Learner signature: _____ Date: _____
 Assessor signature: _____ Date: _____
 Internal verifier signature: _____ Date: _____
 (if sampled)

Unit 17: Erecting and dismantling plant (cranes and rigs) in the workplace

Unit reference number: K/600/8106

QCF level: 2

Credit value: 30

Guided learning hours: 100

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in erecting and dismantling plant (cranes and rigs) in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the additional requirements for qualifications using the title NVQ in QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of erecting and dismantling plant (cranes and rigs) to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against one of the following endorsements:

- Mobile crane
- Crawler crane
- Tower crane
- Overhead crane
- Piling rig
- Demolition rig
- Drilling rig.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to erecting and dismantling plant.</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules, method statements and manufacturers' information.</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements.</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented.</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, method statements, manufacturers' information, regulations and guidance. 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Organise with others the sequence and operation in which erecting and dismantling operations are to be carried out.</p>	<p>2.1 organise the work according to given information or instructions.</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations.</p> <p>2.4 state how to organise resources prior to and during erecting and dismantling operations.</p>			
<p>3. Know how to comply with relevant legislation and official guidance to carry out erecting and dismantling of plant.</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting. <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports.</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Maintain safe working practices when carrying out erecting and dismantling of plant</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during erecting and dismantling operations.</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to erecting and dismantling plant, and the types, purpose and limitations of each type.</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards.</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to carry out erecting and dismantling of plant</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - plant - hand and/or powered tools and equipment <p>5.2 request and select resources associated with the work in relation to consumables, materials, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate weight, bearing pressure, quantity, length and area associated with the method/procedures to carry out the work</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when erecting and dismantling plant</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when erecting and dismantling plant</p>	<p>7.1 demonstrate completion of the work within the allocated time</p> <p>7.2 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to erect and dismantle plant to the required specification</p>	<p>8.1 demonstrate the following work skills when preparing for and erecting and dismantling plant:</p> <ul style="list-style-type: none"> - unloading, loading, siting, measuring, marking out, lay out, aligning, fitting, positioning, connecting, configuring, dismantling, removing, adjusting, securing, checking and inspecting <p>8.2 prepare, erect and dismantle plant to given working instructions on one or more of the following:</p> <ul style="list-style-type: none"> - mobile crane - mobile (truck-mounted) tower crane - crawler crane - tower crane - overhead crane - drilling rig - piling rig - demolition rig <p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - erect and dismantle one or more of the following: mobile crane, mobile (truck-mounted) tower crane, drilling rig, demolition rig and piling rig - use hand tools, power tools, plant and equipment 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.4 safely use and store hand tools, portable power tools, ancillary equipment and machinery			
	8.5 state the needs of other occupations and how to communicate within a team when preparing for and erecting and dismantling plant			
	8.6 describe how to maintain the plant, tools and equipment used to erect and dismantle plant			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(if sampled)

Unit 18: Carrying out checks and/or basic maintenance on plant or machinery in the workplace

Unit reference number: J/600/7111

QCF level: 2

Credit value: 8

Guided learning hours: 27

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in carrying out checks and/or basic maintenance on plant or machinery in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the additional requirements for qualifications using the title NVQ in QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of carrying out checks and/or basic maintenance on plant or machinery to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the following endorsement:

- Own occupational area of work.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Work safely at all times when carrying out checks and/or basic maintenance on plant or machinery</p>	<p>1.1 comply with current legislation, Approved Codes of Practice and organisational procedures</p> <p>1.2 use personal protective equipment (PPE) safely to carry out the activity in accordance with legislation and organisational requirements when carrying out checks and/or basic maintenance on plant or machinery</p> <p>1.3 explain why and when personal protective equipment (PPE) should be used, relating to the carrying out of checks and/or basic maintenance on plant or machinery, and the types, purpose and limitations of each type</p> <p>1.4 safely use, store and secure hand tools and ancillary equipment</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Know how to comply with relevant health and safety legislation and official guidance when carrying out checks and/or basic maintenance on plant or machinery</p>	<p>2.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, with tools, plant or machinery and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>2.2 describe the reasons for devising and complying with risk and COSHH assessments and how this can encourage safe working practices</p> <p>2.3 describe the organisational security procedures for tools, equipment and personal belongings</p> <p>2.4 state what the accident reporting procedures are and who is responsible for making reports</p> <p>2.5 state how hazards and emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>3. Follow the relevant maintenance schedules for the required work when carrying out checks and/or basic maintenance on plant or machinery</p>	<p>3.1 interpret and extract information from specifications, schedules, organisational procedures and manufacturers' information relating to the work being carried out</p> <p>3.2 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>3.3 describe different types of checks and maintenance information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - specifications, schedules, manufacturers' information and organisational procedures <p>3.4 describe the organisational procedures to solve problems with the information and why it is important they are followed</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Carry out checks and/or basic maintenance activities within the limits of their personal authority in the specified sequence and agreed time scale</p>	<p>4.1 demonstrate the following work skills when carrying out checks and/or basic maintenance on plant or machinery:</p> <ul style="list-style-type: none"> - replenishing, replacing, applying, lubricating, cleaning and securing <p>4.2 carry out operator checks and/or basic maintenance tasks on standard or specialised plant or machinery to given working instructions as directed by the employer/ supervisor or authorised person</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>4.3 describe how to follow maintenance authorisation, apply safe work practices, follow procedures, report problems and establish the authority and responsibility needed to:</p> <ul style="list-style-type: none"> - clean and prepare areas and components for maintenance - replenish fuels, lubricants, fluids and coolants - replace parts - recycle components - fit fastening systems, pins, bolts, nuts, washers and consumable items - complete functional checks in accordance with equipment operating and care and control procedures - complete reports and records - use hand tools and ancillary equipment <p>4.4 complete the checks and/or basic maintenance activities within the estimated allocated time and to the required standards and accuracy</p> <p>4.5 state the needs of other occupations and how to communicate within a team when carrying out checks and/or basic maintenance on plant or machinery</p> <p>4.6 describe how to maintain the tools and equipment used when carrying out checks and/or basic maintenance on plant or machinery</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Report any instances where the maintenance activities cannot be fully met or where there are identified defects outside the planned schedule when carrying out checks and/or basic maintenance on plant or machinery</p>	<p>5.1 report problems and defects beyond their area of responsibility</p> <p>5.2 describe the different ways that problems with maintenance procedures and problems associated with resources can be reported</p>			
<p>6. Complete relevant maintenance records accurately and pass them on to the appropriate person when carrying out checks and/or basic maintenance on plant or machinery</p>	<p>6.1 Record and report maintenance tasks in accordance with organisational procedures and manufacturer's requirements</p> <p>6.2 state the procedure to complete checks and maintenance records and what the reporting lines and procedures are within the organisation</p>			
<p>7. Dispose of waste materials in accordance with safe working practices and approved procedures when carrying out checks and/or basic maintenance on plant or machinery</p>	<p>7.1 protect the work and its surrounding area from damage</p> <p>7.2 minimise damage and maintain a clean work space</p> <p>7.3 dispose of waste in accordance with legislation</p> <p>7.4 describe what the waste disposal procedures are, and how and why the disposal of waste should be carried out safely and how it is achieved</p>			

Learner name: _____
Learner signature: _____
Assessor signature: _____
Internal verifier signature: _____
(if sampled)

Date: _____
Date: _____
Date: _____
Date: _____

Unit 19: Operating piling rigs to construct and form in the workplace

Unit reference number: M/600/7975

QCF level: 2

Credit value: 52

Guided learning hours: 173

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in operating piling rigs to construct and form in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the additional requirements for qualifications using the title NVQ in QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of preparing and operating piling rigs to construct and form to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against one of the following endorsements:

- Sheet piling
- Driven piling
- Continuous flight auger piling
- Rotary piling
- Tripod piling
- Vibro piling
- Diaphragm walling
- Mini piling.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1. Interpret the given information relating to the use of piling rigs during constructing and forming operations	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information.</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information, method statements, regulations and guidance 			
2. Organise with others the sequence and operation in which constructing and forming operations using piling rigs are to be carried out	<p>2.1 organise the work according to given information or instructions</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations</p> <p>2.4 state how to organise resources prior to and during piling operations</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>3. Know how to comply with relevant legislation and official guidance to construct and form with piling rigs</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports</p>			
<p>4. Maintain safe working practices when carrying out constructing and forming operations with piling rigs</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during piling operations</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to piling operations, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to carry out constructing and forming operations with piling rigs</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments and aids for piling - hand tools, ancillary equipment and/or accessories <p>5.2 request and select resources associated with piling operations in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate quantity, weight, length and area associated with the method/procedures to carry out the piling work</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when constructing and forming with piling rigs</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when carrying out constructing and forming operations with piling rigs</p>	<p>7.1 demonstrate completion of the work within the allocated time</p> <p>7.2 shut down and secure piling rigs</p> <p>7.3 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to operate piling rigs to construct and form to the required specification</p>	<p>8.1 demonstrate the following work skills when constructing and forming using piling rigs:</p> <ul style="list-style-type: none"> - adjusting, checking, communicating, manoeuvring, positioning, constructing and forming <p>8.2 operate piling rigs to construct and form to given working instructions</p> <p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the piling rig for the operation - carry out performance checks - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - identify the area for the construction and formation work - check to avoid damage to structures and utilities service apparatus - carry out construction and formation operations - shut down and secure the piling rig - use hand tools, ancillary equipment and accessories 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.4 safely use and store hand tools and ancillary equipment 8.5 state the needs of other occupations and how to communicate within a team during piling operations 8.6 describe how to maintain the piling rig, tools and equipment used to carry out piling operations			

Learner name: _____ Date: _____
 Learner signature: _____ Date: _____
 Assessor signature: _____ Date: _____
 Internal verifier signature: _____ Date: _____
 (if sampled)

Unit 20: Allocating and monitoring the use of plant and equipment in the workplace

Unit reference number: H/600/7083

QCF level: 3

Credit value: 9

Guided learning hours: 30

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in allocating and monitoring the use of plant and equipment in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the additional requirements for qualifications using the title NVQ in QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of allocating and monitoring the use of plant and equipment to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Confirm the plant and/or equipment for the workplace and allocate it to the operations</p>	<p>1.1 identify and allocate the required type or types of plant and/or equipment needed for the specific operations</p> <p>1.2 explain how to check plant and/or equipment in the workplace for condition and allocate it to the operations for which it is suitable. Types would include:</p> <ul style="list-style-type: none"> - static and mobile - standard/non-standard - electro-mechanical and electronic - hand tools - consumables - health and safety equipment 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2. Identify and assess health and safety risks and implement working practices and other safeguards to minimise risks involving the use of plant/equipment	<p>2.1 assess health and safety risks and working practices and other safeguards for the work being carried out</p> <p>2.2 describe typical health and safety risks for those that may be affected by the plant or equipment work</p> <p>2.3 explain how to assess health and safety risks and how to implement working practices and other safeguards to minimise risks</p>			
3. Inform decision makers where plant and/or equipment is unsuitable for use in the workplace when allocating and monitoring	<p>3.1 advise decision makers where plant and/or equipment are deemed unsuitable and suggest alternatives for the type of work</p> <p>3.2 explain methods that can be used to inform decision makers when plant and/or equipment is unsuitable for use within the workplace, and explain possible reasons why it/they may be unsuitable</p>			
4. Provide accurate instructions for the use of plant and/or equipment to operators when allocating and monitoring	<p>4.1 instruct operators and users on the safe and correct use of plant and/or equipment using manufacturer's instructions and official guidance</p> <p>4.2 explain different methods and sources to provide accurate instructions for the use of plant and/or equipment to those using, or affected by, plant operations</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5. Know how to inform decision makers promptly when plant and/or equipment is no longer required	5.1 explain the methods used to inform decision makers when plant and/or equipment are not required, and why it/they are not required and the implications should this not be done promptly			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(if sampled)

Unit 21: Carrying out mud, slurry or fluid plant operations in the workplace

Unit reference number: L/600/7112

QCF level: 2

Credit value: 26

Guided learning hours: 87

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in carrying out mud, slurry or fluid plant operations in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the additional requirements for qualifications using the title NVQ in QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of carrying out mud, slurry or fluid plant operations to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the following endorsement:

- Own occupational area of work.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the work and resources when carrying out mud, slurry or fluid plant operations</p>	<p>1.1 interpret and extract information from drawings, instructions, method statements, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statement</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, instructions, specifications, method statements, schedules and manufacturers' information 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Know how to comply with relevant legislation and official guidance when carrying out mud, slurry or fluid plant operations</p>	<p>2.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>2.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>2.3 state what the accident reporting procedures are and who is responsible for making reports</p>			
<p>3. Maintain safe working practices when carrying out mud, slurry or fluid plant operations</p>	<p>3.1 use personal protective equipment (PPE) safely to carry out the activity in accordance with legislation and organisational requirements when carrying out mud, slurry or fluid plant operations</p> <p>3.2 explain why and when personal protective equipment (PPE) should be used, relating to carrying out mud, slurry or fluid plant operations and the types, purpose and limitations of each type</p> <p>3.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Select the required quantity and quality of resources for the methods of work to carrying out mud, slurry or fluid plant operations</p>	<p>4.1 describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> - mud, slurry or fluid plant - hand and/or powered tools and equipment <p>4.2 select resources associated with own work in relation to materials, components, fixings, tools, plant and ancillary equipment</p> <p>4.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>4.4 outline potential hazards associated with the resources and method of work</p> <p>4.5 describe how to calculate quantity, length, area and wastage associated with the method/procedure to carry out mud, slurry or fluid plant operations</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Minimise the risk of damage to the work and surrounding area when carrying out mud, slurry or fluid plant operations</p>	<p>5.1 protect the work and its surrounding area from damage</p> <p>5.2 minimise damage and maintain a clean work space</p> <p>5.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, others involved with the work and adverse weather conditions</p> <p>5.4 dispose of waste in accordance with legislation</p> <p>5.5 state why the disposal of waste should be carried out in relation to the work</p>			
<p>6. Complete the work within the allocated time when carrying out mud, slurry or fluid plant operations</p>	<p>6.1 demonstrate completion of the work within the allocated time</p> <p>6.2 state the purpose of the work programme and explain why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the work programme 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
7. Comply with the given contract information to carry out mud, slurry or fluid plant operations to the required specification	<p>7.1 demonstrate the following work skills when carrying out mud, slurry or fluid plant operations:</p> <ul style="list-style-type: none"> - preparing, setting up, connecting, checking, maintaining, mixing, monitoring, testing, pumping, cleaning, adjusting, and recording <p>7.2 install, operate and maintain mud, slurry or fluid plant to given working instructions in one of the following operations:</p> <ul style="list-style-type: none"> - piling - tunnelling - drilling 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.3 describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> - prepare the area allocated for the plant and ancillary equipment - set up, assemble and check the integrity of plant and ancillary equipment, including the connection of hoses, valves and items of plant for delivery, extraction, recycling and disposal of mud, slurry or fluids - mix mud, slurry or fluids in accordance with manufacturer's recommendations - monitor the pumping process and make appropriate adjustments in order to maintain operational efficiency - test the viscosity and density of the mud, slurry or fluid - complete records of the process - use hand tools, power tools, plant and ancillary equipment <p>7.4 safely use and store hand tools, plant and ancillary equipment</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	7.5 state the needs of other occupations and how to communicate within a team when carrying out mud, slurry or fluid plant operations			
	7.6 describe how to maintain the tools, plant and equipment used when carrying out mud, slurry or fluid plant operations			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 22: Carrying out tremie operations in the workplace

Unit reference number: K/600/7103

QCF level: 2

Credit value: 26

Guided learning hours: 87

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in carrying out tremie operations in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the additional requirements for qualifications using the title NVQ in QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of carrying out tremie operations to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the work and resources when carrying out tremie operations</p>	<p>1.1 interpret and extract information from drawings, instructions, method statements, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statement</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1 4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, instructions, specifications, method statements, schedules, manufacturers' information, and concrete pour records 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Know how to comply with relevant legislation and official guidance when carrying out tremie operations</p>	<p>2.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>2.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>2.3 state what the accident reporting procedures are and who is responsible for making reports</p>			
<p>3. Maintain safe working practices when carrying out tremie operations</p>	<p>3.1 use personal protective equipment (PPE) safely to carry out the activity in accordance with legislation and organisational requirements when carrying out tremie operations</p> <p>3.2 explain why and when personal protective equipment (PPE) should be used, relating to carrying out tremie operations, and the types, purpose and limitations of each type</p> <p>3.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Select the required quantity and quality of resources for the methods of work to carrying out tremie operations</p>	<p>4.1 describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> - tremie systems - hand and/or powered tools, machinery and ancillary equipment <p>4.2 select resources associated with own work in relation to materials, components, fixings, tools, machinery and ancillary equipment</p> <p>4.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>4.4 outline potential hazards associated with the resources and method of work</p> <p>4.5 describe how to calculate quantity, length, area and wastage associated with the method/procedure to carry out tremie operations</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Minimise the risk of damage to the work and surrounding area when carrying out tremie operations</p>	<p>5.1 protect the work and its surrounding area from damage</p> <p>5.2 minimise damage and maintain a clean work space</p> <p>5.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, others involved with the work and adverse weather conditions</p> <p>5.4 dispose of waste in accordance with legislation</p> <p>5.5 state why the disposal of waste should be carried out in relation to the work</p>			
<p>6. Complete the work within the allocated time when carrying out tremie operations</p>	<p>6.1 demonstrate completion of the work within the allocated time</p> <p>6.2 state the purpose of the work programme and explain why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the work programme 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>7. Comply with the given contract information to carry out tremie operations to the required specification</p>	<p>7.1 demonstrate the following work skills when carrying out tremie operations:</p> <ul style="list-style-type: none"> - measuring, cleaning, inspecting, preparing, assembling, fitting, sampling, positioning, placing, monitoring, extracting and removing <p>7.2 contribute to the construction of specialist works by placing concrete using tremie systems to given working instructions</p> <p>7.3 describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> - contribute to the construction of specialist works by placing concrete using tremie systems during the following piling operations: <ul style="list-style-type: none"> - driven casing - bored - diaphragm walling - handle displaced fluids - guide lifting appliances - use hand tools, power tools, machinery and ancillary equipment 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.4 safely use and store hand tools, portable power tools, machinery and ancillary equipment</p> <p>7.5 state the needs of other occupations and how to communicate within a team when carrying out tremie operations</p> <p>7.6 describe how to maintain the tools, machinery and equipment used when carrying out tremie operations</p>			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(if sampled)

Unit 23: Guiding the piling rig for the formation of piles in the workplace

Unit reference number: J/600/7108

QCF level: 2

Credit value: 22

Guided learning hours: 73

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in guiding the piling rig for the formation of piles in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the additional requirements for qualifications using the title NVQ in QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of guiding the piling rig for the formation of piles to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against one or more of the following endorsements:

- Sheet piling
- Driven piling
- Continuous flight auger piling
- Rotary piling
- Tripod piling
- Vibro piling
- Diaphragm walling
- Mini piling.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the work and resources when guiding the piling rig for the formation of piles</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statement</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information and regulations 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Know how to comply with relevant legislation and official guidance when guiding the piling rig for the formation of piles</p>	<p>2.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>2.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>2.3 state what the accident reporting procedures are and who is responsible for making reports</p>			
<p>3. Maintain safe working practices when guiding the piling rig for the formation of piles</p>	<p>3.1 use personal protective equipment (PPE) safely to carry out the activity in accordance with legislation and organisational requirements when guiding the piling rig for the formation of piles</p> <p>3.2 explain why and when personal protective equipment (PPE) should be used, relating to guiding the piling rig for the formation of piles, and the types, purpose and limitations of each type</p> <p>3.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Select the required quantity and quality of resources for the methods of work to guide the piling rig for the formation of piles</p>	<p>4.1 describe the characteristics, quality, uses, limitations and defects associated with the resources in relation to:</p> <ul style="list-style-type: none"> - piling rigs, driven piles, bored piles - hand tools and equipment <p>4.2 select resources associated with your own work in relation to materials, components, fixings, tools and equipment</p> <p>4.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>4.4 outline potential hazards associated with the resources and method of work</p> <p>4.5 describe how to calculate quantity, length and area associated with the method/procedure to guide the piling rig for the formation of piles</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Minimise the risk of damage to the work and surrounding area when guiding the piling rig for the formation of piles</p>	<p>5.1 protect the work and its surrounding area from damage</p> <p>5.2 minimise damage and maintain a clean work space</p> <p>5.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>5.4 dispose of waste in accordance with legislation</p> <p>5.5 state why the disposal of waste should be carried out in relation to the work</p>			
<p>6. Complete the work within the allocated time when guiding the piling rig for the formation of piles</p>	<p>6.1 demonstrate completion of the work within the allocated time</p> <p>6.2 state the purpose of the work programme and explain why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the work programme 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>7. Comply with the given contract information to guide the piling rig for the formation of piles to the required specification</p>	<p>7.1 demonstrate the following work skills when guiding the piling rig for the formation of piles:</p> <ul style="list-style-type: none"> - measure, position, secure, align, level and adjust <p>7.2 guide and monitor the piling rig for the formation and/or installation of piles to given working instructions in one or more of the following piling methods:</p> <ul style="list-style-type: none"> - sheet - driven - continuous flight auger - rotary - tripod - vibro - diaphragm walling - mini-piling 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.3 describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> - identify the sequence of work - set out, measure and mark piling rig positions - guide, align, level and check the bore or drive position of sheet, driven, continuous flight auger, rotary, tripod, vibro, vibro, diaphragm walling and mini piling methods - monitor and adjust the rake of the hole or pile - record information - fit and remove piling rig ancillaries - prepare, position and place reinforcement steel - use hand tools and ancillary equipment - work at height <p>7.4 safely use and store hand tools and ancillary equipment</p> <p>7.5 state the needs of other occupations and how to communicate within a team when guiding the piling rig for the formation of piles</p> <p>7.6 describe how to maintain the tools and equipment used when guiding the piling rig for the formation of piles</p>			

Learner name: _____
Learner signature: _____
Assessor signature: _____
Internal verifier signature: _____
(if sampled)

Date: _____
Date: _____
Date: _____
Date: _____

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the use of 180 degree excavators to carry out extracting and excavating operations</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information, method statements and regulations and guidance applicable to extracting and excavating operations 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Organise with others the sequence and operation in which extracting and excavating operations using 180 degree excavators are to be carried out</p>	<p>2.1 organise the work according to given information or instructions</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations</p> <p>2.4 state how to organise resources prior to and during extracting and excavating operations using 180 degree excavators</p>			
<p>3. Know how to comply with relevant legislation and official guidance to carry out extracting and excavating operations with 180 degree excavators</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Maintain safe working practices when preparing for and carrying out extracting and excavating operations using 180 degree excavators</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during extracting and excavating operations</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to extracting and excavating operations, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to prepare for and carry out extracting and excavating operations using 180 degree excavators</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments and extraction/excavation aids - hand tools, ancillary equipment and/or accessories <p>5.2 request and select resources associated with 180 degree excavators in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate quantity, weight, length and area associated with the method/procedures to carry out extracting and excavating operations using 180 degree excavators</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when extracting and excavating materials using 180 degree excavators</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when preparing to and extracting and excavating materials using 180 degree excavators</p>	<p>7.1 demonstrate completion of the work within the allocated time</p> <p>7.2 shut down and secure 180 degree excavators</p> <p>7.3 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to extract and excavate materials using 180 degree excavators to the required specification</p>	<p>8.1 demonstrate the following work skills when preparing for and extracting and excavating loose materials and ground using 180 degree excavators:</p> <ul style="list-style-type: none"> - fitting, attaching, setting up, securing, adjusting, checking, removing, communicating, operating, manoeuvring, positioning, extracting, excavating, forming, measuring, removing and loading <p>8.2 prepare, position, set up and operate 180 degree excavators to given working instructions</p> <ul style="list-style-type: none"> - extract loose materials and/or different types of ground - load and/or stockpile loose materials and ground - excavate different types of ground 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the 180 degree excavator used for extraction and excavation work - carry out performance checks - prepare, set up and adjust for operational requirements - complete functional checks - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - identify the area to be extracted and excavated - check to avoid damage to structures and utilities service apparatus - extract, excavate, remove and load materials safely and securely - form stockpiles - shut down and secure 180 degree excavators - use hand tools, ancillary equipment and accessories 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.4 safely use and store hand tools and ancillary equipment</p> <p>8.5 state the needs of other occupations and how to communicate within a team when preparing to and carrying out extracting and excavating operations</p> <p>8.6 describe how to maintain the plant, tools and equipment used to extract and excavate materials</p>			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the use of wheeled loading shovels to carry out extracting operations</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information, method statements and regulations and guidance applicable to loading shovel extracting operations 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Organise with others the sequence and operation in which extracting operations using wheeled loading shovels are to be carried out</p>	<p>2.1 organise the work according to given information or instructions</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations</p> <p>2.4 state how to organise resources prior to and during extracting operations using wheeled loading shovels</p>			
<p>3. Know how to comply with relevant legislation and official guidance to carry out extracting operations with wheeled loading shovels</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Maintain safe working practices when preparing for and carrying out extracting operations using wheeled loading shovels</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during extracting operations</p> <p>4.2 (PPE) should be used, relating to extracting operations, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to prepare for and carry out extracting operations using wheeled loading shovels</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments and extraction aids - hand tools, ancillary equipment and/or accessories <p>5.2 request and select resources associated with wheeled loading shovels in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate quantity, weight, length and area associated with the method/procedures to carry out extracting operations using wheeled loading shovels</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when extracting materials using wheeled loading shovels</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when preparing to and extracting materials using wheeled loading shovels</p>	<p>7.1 demonstrate completion of the work within the allocated time</p> <p>7.2 shut down and secure wheeled loading shovels</p> <p>7.3 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to extract materials using wheeled loading shovels to the required specification</p>	<p>8.1 demonstrate the following work skills when preparing for and extracting loose materials using wheeled loading shovels:</p> <ul style="list-style-type: none"> - fitting, attaching, setting up, securing, adjusting, checking, removing, communicating, operating, manoeuvring, positioning, extracting, forming, removing and loading <p>8.2 prepare, position, set up and operate wheeled loading shovels to given working instructions</p> <ul style="list-style-type: none"> - extract loose materials - load and/or stockpile loose materials. 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the wheeled loading shovel used for extraction work - carry out performance checks - prepare, set up and adjust for operational requirements - complete functional checks - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - identify the area to be extracted - check to avoid damage to structures and utilities service apparatus - extract, remove and load materials safely and securely - form stockpiles - shut down and secure wheeled loading shovels - use hand tools, ancillary equipment and accessories 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.4 safely use and store hand tools and ancillary equipment 8.5 state the needs of other occupations and how to communicate within a team when preparing to and carrying out extracting operations 8.6 describe how to maintain the plant, tools and equipment used to extract materials			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 26: Preparing and operating tracked loading shovels to extract ground and loose materials in the workplace

Unit reference number: R/600/7936

QCF level: 2

Credit value: 80

Guided learning hours: 267

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating tracked loading shovels to extract materials in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the additional requirements for qualifications using the title NVQ in QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of preparing and operating tracked loading shovels to extract materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the use of tracked loading shovels to carry out extracting operations</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information, method statements and regulations and guidance applicable to extracting operations 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Organise with others the sequence and operation in which extracting operations using tracked loading shovels are to be carried out</p>	<p>2.1 organise the work according to given information or instructions</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations</p> <p>2.4 state how to organise resources prior to and during extracting operations using tracked loading shovels</p>			
<p>3. Know how to comply with relevant legislation and official guidance to carry out extracting operations with tracked loading shovels</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Maintain safe working practices when preparing for and carrying out extracting operations using tracked loading shovels</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during extracting operations</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to extracting operations, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to prepare for and carry out extracting operations using tracked loading shovels</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments and extraction aids - hand tools, ancillary equipment and/or accessories <p>5.2 request and select resources associated with tracked loading shovels in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate quantity, weight, length and area associated with the method/procedures to carry out extracting operations using tracked loading shovels</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when extracting materials using tracked loading shovels</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when preparing to and extracting materials using tracked loading shovels</p>	<p>7.1 demonstrate completion of the work within the allocated time</p> <p>7.2 shut down and secure tracked loading shovels</p> <p>7.3 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to extract materials using tracked loading shovels to the required specification</p>	<p>8.1 demonstrate the following work skills when preparing for and extracting loose materials and ground using tracked loading shovels</p> <ul style="list-style-type: none"> - fitting, attaching, setting up, securing, adjusting, checking, removing, communicating, operating, manoeuvring, positioning, extracting, forming, removing and loading <p>8.2 prepare, position, set up and operate tracked loading shovels to given working instructions</p> <ul style="list-style-type: none"> - extract ground, face and/or loose materials - load and/or stockpile loose materials 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the tracked loading shovels used for extraction work - carry out performance checks - prepare, set up and adjust for operational requirements - complete functional checks - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - identify the area to be extracted - check to avoid damage to structures and utilities service apparatus - extract, remove and load materials safely and securely - form stockpiles - shut down and secure tracked loading shovels - use hand tools, ancillary equipment and accessories <p>8.4 safely use and store hand tools and ancillary equipment</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.5 state the needs of other occupations and how to communicate within a team when preparing to and carrying out extracting operations			
	8.6 describe how to maintain the plant, tools and equipment used to extract materials			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(if sampled)

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the use of skid steer loaders to carry out extracting operations</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information, method statements and regulations and guidance applicable to extracting operations 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Organise with others the sequence and operation in which extracting operations using skid steer loaders are to be carried out</p>	<p>2.1 organise the work according to given information or instructions</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations</p> <p>2.4 state how to organise resources prior to and during extracting operations using skid steer loaders</p>			
<p>3. Know how to comply with relevant legislation and official guidance to carry out extracting operations with skid steer loaders</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Maintain safe working practices when preparing for and carrying out extracting operations using skid steer loaders</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during extracting operations</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to extracting operations, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to prepare for and carry out extracting operations using skid steer loaders</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments and extraction aids - hand tools, ancillary equipment and/or accessories <p>5.2 request and select resources associated with skid steer loaders in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate quantity, weight, length and area associated with the method/procedures to carry out extracting operations using skid steer loaders</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when extracting materials using skid steer loaders</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when preparing to and extracting materials using skid steer loaders</p>	<p>7.1 demonstrate completion of the work within the allocated time.</p> <p>7.2 shut down and secure skid steer loaders</p> <p>7.3 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to extract materials using skid steer loaders to the required specification</p>	<p>8.1 demonstrate the following work skills when preparing for and extracting loose materials using skid steer loaders:</p> <ul style="list-style-type: none"> - fitting, attaching, setting up, securing, adjusting, checking, removing, communicating, operating, manoeuvring, positioning, extracting, forming, removing and loading. <p>8.2 prepare, position, set up and operate skid steer loaders to given working instructions.</p> <ul style="list-style-type: none"> - extract loose materials - load and/or stockpile loose materials. 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the skid steer loader used for the extraction work - carry out performance checks - prepare, set up and adjust for operational requirements - complete functional checks - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - identify the area to be extracted - check to avoid damage to structures and utilities service apparatus - extract, remove and load materials safely and securely - form stockpiles - shut down and secure skid steer loader - use hand tools, ancillary equipment and accessories. 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.4 safely use and store hand tools and ancillary equipment.</p> <p>8.5 state the needs of other occupations and how to communicate within a team when preparing to and carrying out extracting operations.</p> <p>8.6 describe how to maintain the plant, tools and equipment used to extract materials</p>			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

This unit must be assessed against one of the following endorsements:

- 360 degree Excavator – below 10 tonne tracked
- 360 degree Excavator – below 10 tonne wheeled
- 360 degree Excavator – above 10 tonne tracked
- 360 degree Excavator – above 10 tonne wheeled.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the use of 360 degree excavators to carry out extracting operations</p>	<p>1.1 interpret and extract information from drawings, specifications, schedules and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, manufacturers' information, method statements and regulations and guidance applicable to extracting operations 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Organise with others the sequence and operation in which extracting operations using 360 degree excavators are to be carried out</p>	<p>2.1 organise the work according to given information or instructions</p> <p>2.2 describe how to communicate ideas between team members</p> <p>2.3 organise and communicate with team members and other associated occupations</p> <p>2.4 state how to organise resources prior to and during extracting operations using 360 degree excavators</p>			
<p>3. Know how to comply with relevant legislation and official guidance to carry out extracting operations with 360 degree excavators</p>	<p>3.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, in confined spaces, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>3.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>3.3 state what the accident reporting procedures are and who is responsible for making reports</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Maintain safe working practices when preparing for and carrying out extracting operations using 360 degree excavators</p>	<p>4.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during extracting operations</p> <p>4.2 explain why and when personal protective equipment (PPE) should be used, relating to extracting operations, and the types, purpose and limitations of each type</p> <p>4.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>5. Request and select the required quantity and quality of resources to prepare for and carry out extracting operations using 360 degree excavators</p>	<p>5.1 describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments and extraction/excavation aids - hand tools, ancillary equipment and/or accessories <p>5.2 request and select resources associated with 360 degree excavators in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment</p> <p>5.3 state how the resources should be used correctly, how problems associated with the resources are reported and how the organisational procedures are used</p> <p>5.4 outline potential hazards associated with the resources and method of work</p> <p>5.5 describe how to calculate quantity, weight, length and area associated with the method/procedures to carry out extracting operations using 360 degree excavators</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Minimise the risk of damage to the work and surrounding area when extracting materials using 360 degree excavators</p>	<p>6.1 protect the work and its surrounding area from damage</p> <p>6.2 minimise damage and maintain a clean work space</p> <p>6.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>6.4 dispose of waste in accordance with legislation</p> <p>6.5 state why the disposal of waste should be carried out safely in relation to the work</p>			
<p>7. Complete the work within the allocated time when preparing to and extracting materials using 360 degree excavators</p>	<p>7.1 demonstrate completion of the work within the allocated time</p> <p>7.2 shut down and secure 360 degree excavators</p> <p>7.3 state the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the lifting operation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>8. Comply with the given contract information to extract materials using 360 degree excavators to the required specification</p>	<p>8.1 demonstrate the following work skills when preparing for and extracting loose materials, face or ground using 360 degree excavators:</p> <ul style="list-style-type: none"> - fitting, attaching, setting up, securing, adjusting, checking, removing, communicating, operating, manoeuvring, positioning, extracting, forming, removing and loading <p>8.2 prepare, position, set up and operate 360 degree excavators to given working instructions</p> <ul style="list-style-type: none"> - extract from a face, loose materials and/or ground - load extracted loose materials and/or stockpile loose materials 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.3 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the 360 degree excavators used for the extraction work - carry out performance checks - prepare, set up and adjust for operational requirements - complete functional checks - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - identify the area to be extracted - check to avoid damage to structures and utilities service apparatus - extract, remove and load materials safely and securely - form stockpiles - shut down and secure 360 degree excavators - use hand tools, ancillary equipment and accessories 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.4 safely use and store hand tools and ancillary equipment 8.5 state the needs of other occupations and how to communicate within a team when preparing to and carrying out extracting operations 8.6 describe how to maintain the plant, tools and equipment used to extract materials			

Learner name: _____ Date: _____
 Learner signature: _____ Date: _____
 Assessor signature: _____ Date: _____
 Internal verifier signature: _____ Date: _____
 (if sampled)

Unit 29: Preparing and operating specialised powered tools and equipment in the workplace

Unit reference number: D/600/8099

QCF level: 2

Credit value: 4

Guided learning hours: 13

Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating specialised powered tools and equipment in the workplace within the relevant sector of industry.

Assessment requirements/evidence requirements

This unit must be assessed in a work environment and in accordance with:

- the additional requirements for qualifications using the title NVQ in QCF
- the ConstructionSkills Consolidated Assessment Strategy for Construction and the Built Environment – Craft, Supervisory, Technical, Managerial and Professional Units and Qualifications with NVQ in the Qualification and Credit Framework (QCF) title and SVQs.

Assessors for this unit must use a combination of the following assessment methods:

- observation of normal work activities within the workplace that clearly confirms the required skills
- questioning the learner on knowledge criteria that clearly confirms the required understanding
- review other forms of evidence that can clearly confirm industry required skills, knowledge and understanding.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of occupational expertise and knowledge of preparing and operating specialised powered tools and equipment to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

Assessment methodology

Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>1. Interpret the given information relating to the preparation and use of powered tools and/or equipment</p>	<p>1.1 interpret and extract information from drawings, specifications, risk assessments, method statements, legislation, Codes of Practice, operating instructions and manufacturers' information</p> <p>1.2 comply with information and/or instructions derived from risk assessments and method statements</p> <p>1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented</p> <p>1.4 describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, risk assessments, method statements, legislation, codes of practice, manufacturers' information and instructions applicable to powered tool operations 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2. Know how to comply with relevant legislation and official guidance to prepare and use powered tools and/or equipment</p>	<p>2.1 describe their responsibilities under current legislation and official guidance whilst working:</p> <ul style="list-style-type: none"> - in the workplace, below ground level, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting <p>2.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative</p> <p>2.3 state what the accident reporting procedures are and who is responsible for making reports</p>			
<p>3. Maintain safe working practices when preparing for and using powered tools and/or equipment</p>	<p>3.1 use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements when using powered tools and/or equipment</p> <p>3.2 explain why and when personal protective equipment (PPE) should be used, when using powered tools and/or equipment, and the types, purpose and limitations of each type</p> <p>3.3 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>4. Request and select the required quantity and quality of resources to prepare for sustain powered tools and/or equipment</p>	<p>4.1 request and select resources associated with the type of work in relation to fuel, power source, lubricants and consumables</p> <p>4.2 outline the organisational procedures for requisitioning consumables and other resources and why they have been developed and how they are used</p> <p>4.3 outline potential hazards associated with the resources and method of work and how they are overcome</p>			
<p>5. Minimise the risk of damage to the work and surrounding area when using powered tools and/or equipment</p>	<p>5.1 protect the work and its surrounding area from damage</p> <p>5.2 minimise damage and maintain a clean work space</p> <p>5.3 describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions</p> <p>5.4 dispose of waste in accordance with legislation</p> <p>5.5 state why the disposal of waste should be carried out safely in relation to the work</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>6. Carry out pre-use preparation inspections on powered tools and/or equipment in accordance with given procedures</p>	<p>6.1 demonstrate the following work skills when preparing for and using powered tools and/or equipment for the work:</p> <ul style="list-style-type: none"> - measuring, aligning, assembling, fitting, levelling, positioning, checking, securing, connecting and adjusting <p>6.2 prepare power unit tool(s) and/or ancillary equipment in the workplace to given working instructions</p> <p>6.3 use and maintain power units, tools and ancillary equipment applicable to the work</p> <p>6.4 describe the method of work for pre-use checks needed and the preparation required before using and operating powered tools and/or equipment</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>7. Operate powered tools and/or equipment in accordance with safe working practices to achieve the working outcome</p>	<p>7.1 demonstrate the following work skills when using powered tools and/or equipment:</p> <ul style="list-style-type: none"> - measuring, aligning, assembling, fitting, levelling, positioning, checking, securing, connecting and adjusting <p>7.2 operate and monitor power unit tool(s) and associated equipment in the workplace to given working instructions relating to continual running, closing down and cleaning</p> <p>7.3 return powered tools and/or equipment to a safe operational condition on completion of work</p> <p>7.4 describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - prepare, position and set up for work - secure accessories and tool attachments - carry out pre-use checks to manufacturer's and suppliers information/procedures - operate, use and control - monitor and maintain - close down and secure - disassemble - transport and/or secure 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	7.5 state the needs of other occupations and how to communicate within a team when preparing for and using powered tools and/or equipment			
	7.6 disassemble power units, tools and ancillary equipment following completion of work			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(if sampled)

Further information

Our customer service numbers are:

BTEC and NVQ	0844 576 0026
GCSE	0844 576 0027
GCE	0844 576 0025
The Diploma	0844 576 0028
DiDA and other qualifications	0844 576 0031

Calls may be recorded for training purposes.

Useful publications

Related information and publications include:

- *Centre Handbook for Edexcel QCF NVQs and Competence-based Qualifications* published annually
- functional skills publications – specifications, tutor support materials and question papers
- *Regulatory Arrangements for the Qualification and Credit Framework* (published by Ofqual, August 2008)
- the current Edexcel publications catalogue and update catalogue.

Edexcel publications concerning the Quality Assurance System and the internal and standards verification of vocationally related programmes can be found on the Edexcel website.

NB: Some of our publications are priced. There is also a charge for postage and packing. Please check the cost when you order.

How to obtain National Occupational Standards

CITB-ConstructionSkills
Bircham Newton
King's Lynn
Norfolk
PE31 6RH

Telephone: 01485 577577
Fax: 01485 577793
Email: call.centre@cskills.org

Professional development and training

Edexcel supports UK and international customers with training related to NVQ and BTEC qualifications. This support is available through a choice of training options offered in our published training directory or through customised training at your centre.

The support we offer focuses on a range of issues including:

- planning for the delivery of a new programme
- planning for assessment and grading
- developing effective assignments
- building your team and teamwork skills
- developing student-centred learning and teaching approaches
- building Functional Skills into your programme
- building effective and efficient quality assurance systems.

The national programme of training we offer can be viewed on our website (www.edexcel.com/training). You can request customised training through the website or by contacting one of our advisers in the Training from Edexcel team via Customer Services to discuss your training needs.

The training we provide:

- is active
- is designed to be supportive and thought provoking
- builds on best practice
- may be suitable for those seeking evidence for their continuing professional development.

Annexe A: Progression pathways

The Edexcel qualification framework for the construction and the built environment sector

Level	General qualifications	Diplomas	BTEC vocationally-related qualifications	BTEC specialist qualification/professional	NVQ/competence
8					
7					Edexcel Level 7 NVQ Diploma in Built Environment Design and Consultancy Practice Edexcel Level 7 NVQ Diploma in Construction Senior Management (QCF)

Level	General qualifications	Diplomas	BTEC vocationally-related qualifications	BTEC specialist qualification/professional	NVQ/competence
6					Edexcel Level 6 NVQ Diploma in Built Environment Design Management Edexcel Level 6 NVQ Diploma in Construction Contracting Operations Management Edexcel Level 6 NVQ Diploma in Construction Site Management Edexcel Level 6 NVQ Diploma in Senior Site Inspection
5			Edexcel BTEC Level 5 HN Diploma in Construction		
4			Edexcel BTEC Level 4 HN Certificate in Construction		

Level	General qualifications	Diplomas	BTEC vocationally-related qualifications	BTEC specialist qualification / professional	NVQ/ competence
3		Edexcel Level 3 Diploma in Construction and the Built Environment	Edexcel BTEC Level 3 Certificate, Subsidiary Diploma, Diploma in Extended Diploma in Construction and the Built Environment	Edexcel BTEC Level 3 Award, Extended Certificate and Diploma in Construction and the Built Environment	We have too many qualifications to list in this space. Please refer to www.edexcel.com for further information.
2		Edexcel Level 2 Diploma in Construction and the Built Environment	Edexcel BTEC Level 2 Certificate, Extended Certificate and Diploma in Construction	Edexcel BTEC Level 2 Award, Certificate and Extended Certificate in Construction and the Built Environment (Craft) and Construction and the Built Environment (Technician)	We have too many qualifications to list in this space. Please refer to www.edexcel.com for further information.
1		Edexcel Level 1 Diploma in Construction and the Built Environment	Edexcel BTEC Level 1 Award, Certificate, Diploma in Construction (QCF)	Edexcel BTEC Level 1 Award, Certificate, Extended Certificate in Construction and the Built Environment	We have too many qualifications to list in this space. Please refer to www.edexcel.com for further information.
Entry			Edexcel Entry Level BTEC Award in Construction (Entry 3) (QCF)		

Annexe B: Quality assurance

Key principles of quality assurance

- A centre delivering Edexcel qualifications must be an Edexcel recognised centre and must have approval for qualifications that it is offering.
- The centre agrees as part of gaining recognition to abide by specific terms and conditions around the effective delivery and quality assurance of assessment; the centre must abide by these conditions throughout the period of delivery.
- Edexcel makes available to approved centres a range of materials and opportunities to exemplify the processes required for effective assessment and provide examples of effective standards. Approved centres must use the guidance on assessment to ensure that staff who are delivering Edexcel qualifications are applying consistent standards.
- An approved centre must follow agreed protocols for: standardisation of assessors; planning, monitoring and recording of assessment processes; internal verification and recording of internal verification processes; and for dealing with special circumstances, appeals and malpractice.

Quality assurance processes

The approach to quality assured assessment is made through a partnership between a recognised centre and Edexcel. Edexcel is committed to ensuring that it follows best practice and employs appropriate technology to support quality assurance processes where practicable. Therefore, the specific arrangements for working with centres will vary. Edexcel seeks to ensure that the quality assurance processes that it uses do not place undue bureaucratic processes on centres and works to support centres in providing robust quality assurance processes.

The learning outcomes and assessment criteria in each unit within this specification set out the standard to be achieved by each learner in order to gain each qualification. Edexcel operates a quality assurance process, which is designed to ensure that these standards are maintained by all assessors and verifiers.

For the purposes of quality assurance all individual qualifications and units are considered as a whole. Centres offering this qualification must be committed to ensuring the quality of the units and qualifications they offer, through effective standardisation of assessors and internal verification of assessor decisions. Centre quality assurance and assessment processes are monitored by Edexcel.

The Edexcel quality assurance processes will involve:

- gaining centre recognition and qualification approval if a centre is not currently approved to offer Edexcel qualifications
- annual visits to centres by Edexcel for quality review and development of overarching processes and quality standards. Quality review and development visits will be conducted by an Edexcel quality development reviewer
- annual visits by occupationally competent and qualified Edexcel Standards Verifiers for sampling of internal verification and assessor decisions for the occupational sector
- the provision of support, advice and guidance towards the achievement of National Occupational Standards.

Centres are required to declare their commitment to ensuring quality and appropriate opportunities for learners that lead to valid and accurate assessment outcomes. In addition, centres will commit to undertaking defined training and online standardisation activities.

Annexe C: Centre certification and registration

Edexcel Standards Verifiers will provide support, advice and guidance to centres to achieve Direct Claims Status (DCS). Edexcel will maintain the integrity of Edexcel QCF NVQs through ensuring that the awarding of these qualifications is secure. Where there are quality issues identified in the delivery of programmes, Edexcel will exercise the right to:

- direct centres to take actions
- limit or suspend certification
- suspend registration.

The approach of Edexcel in such circumstances is to work with the centre to overcome the problems identified. If additional training is required, Edexcel will aim to secure the appropriate expertise to provide this.

What are the access arrangements and special considerations for the qualification in this specification?

Centres are required to recruit learners to Edexcel qualifications with integrity.

Appropriate steps should be taken to assess each applicant's potential and a professional judgement made about their ability to successfully complete the programme of study and achieve the qualification. This assessment will need to take account of the support available to the learner within the centre during their programme of study and any specific support that might be necessary to allow the learner to access the assessment for the qualification. Centres should consult Edexcel's policy on learners with particular requirements.

Edexcel's policy on access arrangements and special considerations for Edexcel qualifications aims to enhance access to the qualifications for learners with disabilities and other difficulties (as defined by the 1995 Disability Discrimination Act and the amendments to the Act) without compromising the assessment of skills, knowledge, understanding or competence. Please refer to *Access Arrangements and Special Considerations for BTEC and Edexcel NVQ Qualifications* for further details. www.edexcel.com.

Annexe D: Additional requirements for qualifications that use the title NVQ within the QCF

Contents	
Purpose of document	290
Background	291
Additional requirements for qualifications that use the title NVQ within the QCF	292
Introduction	292
Assessment requirements	292
Quality assurance requirements	294

Purpose of document

- 1 The purpose of this document is to make clear what additional requirements are needed to assess and quality assure qualifications that use the title NVQ within the QCF.
- 2 When an SSC/SSB and awarding organisation wants to use the title NVQ in the naming of a qualification within the QCF, the awarding organisation is required to make sure this qualification is assessed and quality assured in accordance with these additional requirements and other requirements described in the SSC/SSB assessment strategy.
- 3 The aims of these additional requirements are to:
 - ensure that all competence based qualifications that use the title NVQ within the QCF are
 - assessed consistently
 - quality assured consistently
 - maintain the integrity of qualifications that use the title NVQ within the QCF
 - establish the NVQ brand within the QCF
 - keep bureaucracy associated with assessment and quality assurance of qualifications that use the title NVQ within the QCF to a minimum.

Background

- 4 ¹ “At the heart of an NVQ is the concept of occupational competence; the ability to perform to the standards required in employment across a range of circumstances and to meet changing demands. NVQs are first and foremost about what people can do. They go beyond technical skills to include planning, problem solving, dealing with unexpected occurrences, working with other people and applying the knowledge and understanding that underpins overall competence”.
- 5 NVQs are based entirely on National Occupational Standards (NOS) developed by an SSC/SSB, which describe the competence needed in an occupational role.
- 6 Qualifications that use the title NVQ within the QCF must comply with the rules of combination determined by the SSC/SSB. Awarding organisations are not allowed to develop another qualification that does not use the title NVQ within the QCF, if it uses the same rules of combination as a qualification that does use the title NVQ within the QCF.
- 7 The QCF offers increased flexibility in the way occupational competence can be assessed and demonstrated. Qualifications that use the title NVQ in the title within the QCF are just one way of assessing and demonstrating occupational competence. SSCs/SSBs are free to work with their awarding organisations to agree what qualifications will be used to assess occupational competence. Qualifications that use the title NVQ within the QCF, are not a preferred method for assessing occupational competence and all qualifications accredited through the QCF have equal status.
- 8 When developing a qualification for the QCF, including qualifications that use the title NVQ within the QCF, an awarding organisation must be a recognised awarding organisation and must meet the Qualification Requirements in the Regulatory Arrangements for the Qualifications and Credit Framework, published by The Office of the Qualifications and Examinations Regulator (Ofqual) in August 2008.
- 9 The qualification regulators confirmed that a group of SSCs and SSBs would be free to develop specific, additional requirements about the way in which qualifications that use the title NVQ within the QCF will be assessed and quality assured. For those recognised awarding organisations that want to assess occupational competence through the use of qualifications that use the title NVQ within the QCF, it has been agreed by SSCs and SSBs that the following additional requirements must be met.

¹ NCVQ's NVQ Criteria and Guidance 1995.

Additional requirements for qualifications that use the title NVQ within the QCF

Introduction

- 10 Qualifications that use the title NVQ within the QCF must be assessed and quality assured in accordance with the following additional requirements.

Assessment requirements

- 11 When a qualification uses the title NVQ within the QCF, awarding organisations are required to make sure their recognised assessment centres understand how learners are to be assessed.
- 12 Assessment methodologies must meet the assessment strategy developed in partnership between the relevant SSC or SSB and awarding organisations for the qualification. The assessment strategy must be published and made available separately and will include the requirements for assessment of qualifications that use the title NVQ within the QCF. The assessment criteria for each unit will be part of the units that make up the qualification.
- 13 Learners must complete real work activities in order to produce evidence to demonstrate they have met the NOS and are occupationally competent.
- 14 When a learner cannot complete a real work activity, simulation is allowed.
- 15 Simulation is allowed when:
- a learner is required to complete a work activity that does not occur on a regular basis and therefore opportunities to complete a particular work activity do not easily arise
 - a learner is required to respond to a situation that rarely occurs, such as responding to an emergency situation
 - the safety of a learner, other individuals and/or resources will be put at risk.
- 16 When simulation is used, assessors must be confident that the simulation replicates the workplace to such an extent that learners will be able to fully transfer their occupational competence to the workplace and real situations.
- 17 Units that must not be assessed by simulation must be identified by the SSC/SSB in the assessment strategy for the qualification or family of qualifications.

- 18 Learners must be assessed by assessors:
- who are occupationally competent in the occupational areas they are assessing where they have sufficient and relevant technical/occupational competence in the unit, at or above the level of the unit being assessed and as defined by the assessment strategy for that qualification
 - ²who must hold or be working towards a suitable assessor qualification to confirm they understand assessment and how to assess learners
 - must be fully conversant with the unit(s) against which the assessments and verification are to be undertaken.
- 19 All assessors must carry out assessment to the standards specified in the A units.
- 20 All assessment decisions made by a trainee assessor must be checked by a qualified assessor or an assessor recognised by an awarding organisation.
- 21 Trainee assessors must have a plan, which is overseen by the recognised assessment centre, to achieve the relevant assessor qualification(s) within an agreed timescale.

² Currently an assessor could hold unit A1 and/or unit A2. Or from the past unit D32 and/or unit D33. SSCs also identify other suitable equivalent qualifications.

Quality assurance requirements

- 22 When a qualification uses the title NVQ within the QCF, awarding organisations are required to make sure their recognised assessment centres understand how the qualification will be quality assured.
- 23 Qualifications that use the title NVQ within the QCF, must be verified:
- internally by an internal verifier, who is accountable to the assessment centre
 - externally by an external verifier, who is accountable to the awarding organisation or an agent of the awarding organisation.
- 24 With reference to internal verification, internal verifiers must:
- ³hold or be working towards a suitable internal verifier qualification to confirm they understand how to internally verify assessments
 - have sufficient and relevant technical/occupational familiarity in the unit(s) being verified
 - be fully conversant with the standards and assessment criteria in the units to be assessed
 - understand the awarding organisation's quality assurance systems and requirements for this qualification.
- 25 Trainee internal verifiers must have a plan, which is overseen by the recognised assessment centre, to achieve the internal verifier qualification within an agreed timescale.
- 26 With reference to external verification, external verifiers must:
- ⁴hold or be working towards a suitable external verification qualification to confirm they understand and are able to carry out external verification
 - have no connections with the assessment centre, in order to maintain objectivity
 - have sufficient and relevant technical/occupational understanding in the unit(s) being verified
 - be fully conversant with the standards and performance criteria in the units to be assessed
 - understand the awarding organisation's quality assurance systems for this qualification.
- 27 Trainee external verifiers must have a plan, which is overseen by the awarding organisation, to achieve the external verifier qualification within an agreed timescale.

³ Currently an internal verifier needs to hold unit V1. Or from the past unit D34. SSCs also identify other suitable equivalent qualifications.

⁴ Currently an external verifier needs to hold unit V2. Or from the past unit D35.

- 28 Awarding organisations must decide the frequency of external monitoring activities. Any decision must be based on:
- the risks associated with a qualification that is designed to help a learner demonstrate occupational competence
 - an evaluation of the centre's performance and past record.
- 29 Awarding organisations will have in place suitably constituted audit processes, which are supported by naturally occurring quality assurance and monitoring systems that already exist in workplace assessment environments.

Annexe E: Assessment Requirements/Strategy

The ConstructionSkills Assessment Strategy will be available on the Edexcel website, along side the full specification on the Construction NVQ/Competence page.

Publications Code N025030 October 2010

For more information on Edexcel and BTEC qualifications please
visit our website: www.edexcel.com

Edexcel Limited. Registered in England and Wales No. 4496750
Registered Office: One90 High Holborn, London WC1V 7BH. VAT Reg No 780 0898 07

Ofqual
.....



Llywodraeth Cynulliad Cymru
Welsh Assembly Government



Rewarding Learning