



QCF Unit and Assessment Specification

Unit title	Preparing and Operating 360 Degree Excavators to Excavate Ground in the Workplace
Ofqual Unit code	R/600/7970
SQA Unit code	FC98 68
SSC Ref	VR 389C

QCF Unit specification

Title:	Preparing and Operating 360 degree Excavators to Excavate Ground in the Workplace	
Level:	2	
Credit value:	80	
Learning Outcomes <i>The learner will be able to:</i>	Assessment Criteria <i>The learner can:</i>	
1 Interpret the given information relating to the use of 360 degree excavators to carry out excavating operations.	1.1	Interpret and extract information from drawings, specifications, schedules and manufacturers' information.
	1.2	Comply with information and/or instructions derived from risk assessments and method statements.
	1.3	State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented.
	1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> ◆ drawings, specifications, schedules, manufacturers' information, method statements and regulations and guidance applicable to excavating operations.
2 Organise with others the sequence and operation in which excavating operations using 360 degree excavators are to be carried out.	2.1	Organise the work according to given information or instructions.
	2.2	Describe how to communicate ideas between team members.
	2.3	Organise and communicate with team members and other associated occupations.
	2.4	State how to organise resources prior to and during excavating operations using 360 degree excavators.
3 Know how to comply with relevant legislation and official guidance to carry out excavating operations with 360 degree excavators.	3.1	Describe their responsibilities under current legislation and official guidance whilst working: <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.
	3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.

Learning Outcomes <i>The learner will be able to:</i>	Assessment Criteria <i>The learner can:</i>
	3.3 State what the accident reporting procedures are and who is responsible for making reports.
4 Maintain safe working practices when preparing for and carrying out excavating operations using 360 degree excavators.	4.1 Use personal protective equipment (PPE) to safely carry out the activity in accordance with legislation and organisational requirements during excavating operations.
	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.
	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.
5 Request and select the required quantity and quality of resources to prepare for and carry out excavating operations using 360 degree excavators.	5.1 Describe the characteristics, quality, uses, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> ◆ consumables, lubricants and fuels ◆ attachments and excavation aids ◆ hand tools, ancillary equipment and/or accessories.
	5.2 Request and select resources associated with 360 degree excavators in relation to consumables, materials, attachments, tools, accessories and/or ancillary equipment.
	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.
	5.4 Outline potential hazards associated with the resources and method of work.
	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.

Learning Outcomes <i>The learner will be able to:</i>	Assessment Criteria <i>The learner can:</i>
6 Minimise the risk of damage to the work and surrounding area when excavating materials using 360 degree excavators.	6.1 Protect the work and its surrounding area from damage.
	6.2 Minimise damage and maintain a clean work space.
	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.
	6.4 Dispose of waste in accordance with legislation.
	6.5 State why the disposal of waste should be carried out safely in relation to the work.
7 Complete the work within the allocated time when preparing to and excavating materials using 360 degree excavators.	7.1 Demonstrate completion of the work within the allocated time.
	7.2 Shut down and secure 360 degree excavators.
	7.3 State the purpose of the work programme and describe why deadlines should be kept in relation to: <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.
8 Comply with the given contract information to excavate materials using 360 degree excavators to the required specification.	8.1 Demonstrate the following work skills when preparing for and excavating ground using 360 degree excavators: <ul style="list-style-type: none"> ◆ fitting, attaching, setting up, securing, adjusting, checking, removing, communicating, operating, manoeuvring, positioning, excavating, forming, removing and loading.
	8.2 Prepare, position, set up and operate 360 degree excavators to given working instructions. <ul style="list-style-type: none"> ◆ excavate a variety of ground ◆ load and/or stockpile excavated loose materials.
	8.3 Describe how to apply safe work practices, follow procedures, report problems and establish authority needed to rectify, to: <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

Learning Outcomes <i>The learner will be able to:</i>	Assessment Criteria <i>The learner can:</i>
	<ul style="list-style-type: none"> ◆ 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.
	<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 excavating operations.</p>
	<p>8.6 Describe how to maintain the plant, tools and equipment used to excavate materials.</p>

Additional information about this Unit	
Purpose and aim of Unit	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.
Unit expiry date	31/10/2014
Details of the relationship between the Unit and relevant national occupational standards or other professional standards or curricula (if appropriate)	This Unit is based on the National Occupational Standards 'Prepare Plant or Machinery for Operational Performance' (VR 386) and 'Operate Plant or Machinery to Excavate' (VR 389)
Assessment requirements or guidance specified by a sector or regulatory body (if appropriate)	<p>This Unit must be assessed in a work environment and in accordance with:</p> <ul style="list-style-type: none"> ◆ 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. <p>Assessors for this Unit must use a combination of the following assessment methods:</p> <ul style="list-style-type: none"> ◆ 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. <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This Unit must be assessed against one of the following endorsements:</p> <ul style="list-style-type: none"> ◆ 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
Support for the Unit from a sector skills council or other appropriate body (if required)	ConstructionSkills

Additional information about this Unit	
Location of the Unit within the subject/sector classification system	05.2 Building and Construction
Name of the organisation submitting the Unit	ConstructionSkills
Availability for use	Shared Unit
Unit available from	01/09/2010
Unit review date	30/04/2011
Credit value	80
Unit guided learning hours	267

QCF Assessment specification

Assessment (evidence) Requirements

The evidence requirements for this Unit are shown in the main body of the Unit under the section titled 'Assessment requirements or guidance specified by a sector or regulatory body'.

Guidance on Instruments of Assessment

Occupational Skills (OS) Unit

This Unit is designed to assess the skills of learners in the workplace. Observation of learner performance can only be carried out on-the-job and should always be the primary and preferred source of evidence of competent performance.

Collection of supplementary evidence of performance can be used to further substantiate, support and expand the evidence base for competent performance where this is necessary. This may arise in situations where evidence from direct observation of the learners on-the-job is deemed insufficient to fully meet the required standards. Supplementary evidence may include:

- ◆ witness testimony
- ◆ questioning
- ◆ professional discussion
- ◆ product and photographic evidence
- ◆ relevant active documentation, reports, presentations
- ◆ other valid evidence which relates directly to learner performance on-the job

SQA's Guide to Assessment is designed to provide support for everyone who assesses for SQA qualifications. It looks at the principles of assessment, and brings together information on assessment in general as well as on best practice in assessment. The Guide to Assessment can be downloaded free from SQA's website www.sqa.org.uk.