

**Pearson  
Edexcel Level 2 NVQ Certificate  
in Plant Operations  
(Construction)**

**Pearson  
Edexcel Level 2 NVQ Diploma  
in Plant Operations  
(Construction)**

**Specification**

NVQ qualifications

First registration May 2015

Issue 2

## **Edexcel, BTEC and LCCI qualifications**

Edexcel, BTEC and LCCI qualifications are awarded by Pearson, the UK's largest awarding body offering academic and vocational qualifications that are globally recognised and benchmarked. For further information, please visit our qualifications website at [qualifications.pearson.com](http://qualifications.pearson.com). Alternatively, you can get in touch with us using the details on our contact us page at [qualifications.pearson.com/contactus](http://qualifications.pearson.com/contactus)

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This specification is Issue 2. Key changes are listed in the summary table on the next page. We will inform centres of any changes to this issue. The latest issue can be found on the Pearson website: [qualifications.pearson.com](http://qualifications.pearson.com)

These qualifications were previously known as:

Pearson Edexcel Level 2 NVQ Certificate in Plant Operations (Construction) (QCF)

Pearson Edexcel Level 2 NVQ Diploma in Plant Operations (Construction) (QCF)

The QNs remain the same.

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## Summary of Pearson Edexcel Level 2 NVQ Certificate/Diploma in Plant Operations (Construction) Issue 2 changes

Summary of changes made between previous issue 1 and this current issue 2	Page Number
All references to QCF have been removed throughout the specification with the exception of documents from other organisations eg Assessment Guidance in an Annexe	Throughout
Definition of TQT added	2
Definition of sizes of qualifications aligned to TQT	3
TQT value added	4
GLH range removed and replaced with lowest GLH value for the shortest route through the qualification	4
QCF references removed from unit titles and unit levels in all units	44-617

Earlier issue(s) show(s) previous changes.

If you need further information on these changes or what they mean, contact us via our website at: [qualifications.pearson.com/en/support/contact-us.html](http://qualifications.pearson.com/en/support/contact-us.html).



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# Purpose of this specification

This specification sets out:

- the objectives of the qualifications
- any other qualification(s) that a learner must have completed before taking these qualifications
- any prior knowledge, skills or understanding which the learner is required to have before taking these qualifications
- the combination of units that a learner must have completed before the qualifications will be awarded and any pathways
- any other requirements that a learner must have satisfied before they will be assessed or before the qualifications will be awarded
- the knowledge, skills and understanding that will be assessed as part of the qualifications
- the method of any assessment and any associated requirements relating to it
- the criteria against which a learner's level of attainment will be measured (such as assessment criteria)
- assessment requirements and/or evidence requirements required as specified by the relevant Sector Skills Council/Standards Setting Body
- assessment requirements/strategy as published by the relevant Sector Skills Council/Standards Setting Body
- the Apprenticeship Framework in which the qualifications are included, where appropriate.

# 1 Introducing Pearson Edexcel NVQ qualifications

## What are NVQ qualifications?

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National Vocational Qualifications (NVQs) are work-based qualifications that give learners the opportunity to develop and demonstrate their competence in the area of work or job role to which the qualification relates.

NVQs are based on the National Occupational Standards (NOS) for the appropriate sector. NOS define what employees, or potential employees, must be able to do and know, and how well they should undertake work tasks and work roles. At Level 2 and above, these qualifications are recognised as the competence component of Apprenticeship Frameworks. Qualifications at Level 1 can be used in Traineeships, which are stepping stones to Apprenticeship qualifications. NVQs can also be delivered as stand-alone for those who wish to take a work-based qualification.

NVQs are outcomes-based with no fixed learning programme – allowing flexible delivery that meets the individual learner’s needs. They are suitable for those in employment or those who are studying at college and have a part-time job or access to a substantial work placement so that they are able to demonstrate the competencies that are required for work.

Most learners will work towards their qualification in the workplace or in settings that replicate the working environment as specified in the assessment requirements/strategy for the sector. Colleges, training centres and/or employers can offer these qualifications provided they have access to appropriate physical and human resources.

## Sizes of NVQ/Competence-based qualifications

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For all regulated qualifications, we specify a total number of hours that learners are expected to undertake in order to complete and show achievement for the qualification – this is the Total Qualification Time (TQT). The TQT value indicates the size of a qualification.

Within the TQT, we identify the number of Guided Learning Hours (GLH) that a centre delivering the qualification needs to provide. Guided learning means activities that directly or immediately involve tutors and assessors in teaching, supervising, and invigilating learners, for example lectures, tutorials, online instruction and supervised study.

As well as guided learning, there may be other required learning that is directed by tutors or assessors. This includes, for example, private study, preparation for assessment and undertaking assessment when not under supervision, such as preparatory reading, revision and independent research.

As well as TQT and GLH, qualifications can also have a credit value – equal to one tenth of TQT, rounded to the nearest whole number.

TQT and credit values are assigned after consultation with users of the qualifications.

NVQ/Competence-based qualifications are available in the following sizes:

- Award – a qualification with a TQT value of 120 or less (equivalent to a range of 1–12 credits)
- Certificate – a qualification with a TQT value in the range of 121–369 (equivalent to a range of 13–36 credits)
- Diploma – a qualification with a TQT value of 370 or more (equivalent to 37 credits and above).

## 2 Qualification summary and key information

Qualification title	Pearson Edexcel Level 2 NVQ Certificate in Plant Operations (Construction)
Qualification Number (QN)	601/6018/4
Regulation start date	10/04/2015
Operational start date	01/05/2015
Approved age ranges	16–18 19+ Please note that sector-specific requirements or regulations may prevent learners of a particular age from embarking on this qualification. Please refer to the assessment requirements/strategy.
Credit value	16
Assessment	Portfolio of Evidence (internal assessment).
Total Qualification Time (TQT)	160
Guided learning hours	54
Grading information	The qualification and units are graded pass/fail.
Entry requirements	No prior knowledge, understanding, skills or qualifications are required before learners register for this qualification. However, centres must follow the Pearson Access and Recruitment policy (see <i>Section 7, Access and Recruitment</i> ).
Funding	Qualifications eligible and funded for post-16-year-olds can be found on the funding Hub. The Skills Funding Agency also publishes a funding catalogue that lists the qualifications available for 19+ funding.

Qualification title	Pearson Edexcel Level 2 NVQ Diploma in Plant Operations (Construction)
Qualification Number (QN)	601/6019/6
Regulation start date	10/04/2015
Operational start date	01/05/2015
Approved age ranges	16–18 19+ Please note that sector-specific requirements or regulations may prevent learners of a particular age from embarking on this qualification. Please refer to the assessment requirements/strategy.
Credit value	45
Assessment	Portfolio of Evidence (internal assessment).
Total Qualification Time (TQT)	450
Guided learning hours	150
Grading information	The qualification and units are graded pass/fail.
Entry requirements	No prior knowledge, understanding, skills or qualifications are required before learners register for this qualification. However, centres must follow the Pearson Access and Recruitment policy (see <i>Section 7, Access and Recruitment</i> ).
Funding	Qualifications eligible and funded for post-16-year-olds can be found on the funding Hub. The Skills Funding Agency also publishes a funding catalogue that lists the qualifications available for 19+ funding.

Centres will need to use the Qualification Number (QN) when they seek public funding for their learners. As well as a QN, each unit within a qualification has a unit reference number (URN).

The qualification title, unit titles and QN will appear on each learner's final certificate. Centres should tell learners this when recruiting them and registering them with Pearson. There is more information about certification in our

*UK Information Manual*, available on our website.

## 3 Qualification rationale

### Qualification objectives

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Pearson Edexcel Level 2 NVQ Certificate and Diploma in Plant Operations (Construction), are for learners who work in, or who want to work in, the construction and built environment sector working across a broad range of areas. They are 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.

These qualifications are nationally recognised and based on the Construction Skills National Occupational Standards (NOS), they give the learner an opportunity to:

- develop and demonstrate competence in building and construction
- enable learners to work on a construction site, in a public place or on the highway, operating plant/machinery to transfer loads, excavate, lift and move materials to given specifications
- have existing skills recognised
- develop personal growth and engagement in learning.

### Relationship with previous qualifications

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These qualifications are a direct replacement for the following Pearson qualifications:

- Pearson Edexcel Level 2 NVQ Certificate in Plant Operations (Construction) (QCF) 500/9642/4 01/08/2010
- Pearson Edexcel Level 2 NVQ Diploma in Plant Operations (Construction) (QCF) 500/9641/2 01/08/2010

CITB, the Sector Skills Council (SSC) for construction, in consultation with the industry, have changed the National Occupational Standards (NOS) so it is important that Pearson updates qualifications accordingly to ensure knowledge and skills continue to be relevant for learners and meet the requirements of the job role.

### Apprenticeships

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CITB include the Pearson Edexcel Level 2 Diploma in Wood Occupations (Construction) as the competence component for the intermediate Apprenticeship in Construction Specialist.

## **Progression opportunities**

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Learners who achieve the Pearson Edexcel Level 2 NVQ Certificate or Diploma in Plant operations (Construction), can progress into construction operations and also occupational work supervision, management or technical support areas such as the Pearson Edexcel Level 3 Diploma in Occupational Work Supervision (Construction) or the Pearson Edexcel Level 3 NB+VQ Diploma in Construction Site Supervision (Construction), if their job roles develop accordingly.

## **Industry support and recognition**

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These qualifications are supported by ConstructionSkills, the Skills Council for construction and the built environment.

## **Relationship with National Occupational Standards**

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These qualifications are based on the National Occupational Standards (NOS) in Construction and the Built Environment, which were set and designed by ConstructionSkills.

## 4 Qualification structures

### Pearson Edexcel Level 2 NVQ Certificate in Plant Operations (Construction)

The learner will need to meet the requirements outlined in the table below before the qualification can be awarded.

Minimum number of credits that must be achieved	16
Minimum number of credits that must be achieved at Level 1 or above	14

Unit	Unit reference number	Mandatory units	Level	Credit	Guided learning hours
1	A/503/1170	Conforming to General Health, Safety and Welfare in the Workplace.	1	2	7
2	J/503/1169	Conforming to Productive Working Practices in the Workplace	2	3	10
Unit	Unit reference number	Optional units for pathway 1 (Cranes and Specialist Lifting)	Level	Credit	Guided learning hours
3	Y/506/4600	Preparing and operating compact cranes to lift and transfer loads in the workplace	2	30	100
4	M/506/4604	Preparing and operating pedestrian operated tower cranes to lift and transfer loads in the workplace	2	30	100
5	T/506/4605	Preparing and operating overhead cranes to lift and transfer loads in the workplace	2	18	60
6	A/506/4606	Preparing and operating excavator cranes to lift and transfer loads in the workplace	2	30	100
7	L/506/3928	Preparing and operating hoists to lift and transfer loads in the workplace	2	12	40
8	R/506/4613	Preparing and operating lorry loaders or knuckle booms to lift and transfer loads in the workplace	2	30	100
9	Y/506/4614	Preparing and operating skip handlers to lift and transfer loads in the workplace	2	18	60

Unit	Unit reference number	Optional units for pathway 1 (Cranes and Specialist Lifting)	Level	Credit	Guided learning hours
10	D/506/4615	Preparing and operating container handlers to lift and transfer loads in the workplace	2	18	60
11	H/506/4616	Preparing and operating self-propelled modular transporters – SPMT – to lift and transfer loads in the workplace	2	30	100
12	K/506/4617	Preparing and operating ergonomic manipulating machines to lift and transfer loads in the workplace	2	11	37
Unit	Unit reference number	Optional units for pathway 2 (Fork-lift Trucks)	Level	Credit	Guided learning hours
13	F/506/4607	Preparing and operating rough terrain masted forklifts to lift and transfer loads in the workplace	2	18	60
14	J/506/4608	Preparing and operating industrial forklift trucks to lift and transfer loads in the workplace	2	16	53
15	F/506/4610	Preparing and operating telescopic handlers to lift and transfer loads in the workplace	2	25	83
16	J/506/4611	Preparing and operating reach trucks to lift and transfer loads in the workplace	2	16	53
17	L/506/7851	Preparing and operating sideloader forklifts to lift and transfer loads in the workplace	2	16	53
Unit	Unit reference number	Optional units for pathway 3 (Extracting)	Level	Credit	Guided learning hours
18	M/506/4621	Preparing and operating wheeled loading shovels to extract loose materials in the workplace	2	26	87
19	F/506/4624	Preparing and operating skid steer loaders to extract loose materials in the workplace	2	20	67
20	Y/506/4628	Preparing and operating loader compressors to extract loose materials in the workplace	2	16	53

Unit	Unit reference number	Optional units for pathway 4 (Transporting Loads)	Level	Credit	Guided learning hours
21	J/506/4642	Preparing and operating forward tipping dumpers to receive, transport and discharge materials in the workplace	2	16	53
22	L/506/4643	Preparing and operating rear tipping dump trucks to receive, transport and discharge materials in the workplace	2	30	100
23	R/506/4644	Preparing and operating tractors with towed equipment for non-agricultural activities in the workplace	2	20	67
24	M/506/5087	Preparing and operating trailer-mounted concrete pumps to receive, pump and discharge materials in the workplace	2	18	60
25	Y/506/4645	Preparing and operating self-propelled bowsers to receive, transport and discharge materials in the workplace	2	12	40
26	D/506/4646	Preparing and operating static concrete placing booms to discharge and place materials in the workplace	2	25	83
27	H/506/4647	Preparing and operating volumetric trucks to receive and transport materials in the workplace	2	30	100
Unit	Unit reference number	Optional units for pathway 5 (Work Platforms)	Level	Credit	Guided learning hours
28	K/506/4648	Preparing and operating scissor-type mobile elevating work platforms – MEWP – in the workplace	2	12	40
29	M/506/4649	Preparing and operating boom-type mobile elevating work platforms – MEWP – in the workplace	2	14	47
30	H/506/4650	Preparing and operating mast climber-type mobile elevating work platforms – MEWP – in the workplace	2	12	40

Unit	Unit reference number	Optional units for pathway 6 (Laying and Distributing)	Level	Credit	Guided learning hours
31	Y/506/4659	Preparing and operating binder spreaders to lay and distribute materials in the workplace	2	25	83
32	K/506/4729	Preparing and operating self-propelled spreaders to lay and distribute materials in the workplace	2	25	83
33	L/506/4660	Preparing and operating towed scrapers to lay and distribute materials in the workplace	2	25	83
Unit	Unit reference number	Optional units for pathway 7 (Compacting)	Level	Credit	Guided learning hours
34	R/506/4661	Preparing and operating ride-on rollers to compact materials in the workplace	2	16	53
35	Y/506/4662	Preparing and operating soil compactors to compact materials in the workplace	2	16	53
36	D/506/4663	Preparing and operating landfill compactors to compact materials in the workplace	2	25	83
Unit	Unit reference number	Optional units for pathway 8 (Processing)	Level	Credit	Guided learning hours
37	H/506/4664	Preparing and operating crushers to process materials in the workplace	2	16	53
38	M/506/4666	Preparing and operating screeners to process materials in the workplace	2	12	40
39	T/506/4667	Preparing and operating batching plant to process materials in the workplace	2	12	40
Unit	Unit reference number	Mandatory units for pathway 9 (Loading and Securing)	Level	Credit	Guided learning hours
40	F/506/4669	Preparing for, and arranging and securing plant or machinery for transportation in the workplace	2	16	53

Unit	Unit reference number	Optional units for pathway 9 (Loading and Securing)	Level	Credit	Guided learning hours
41	A/506/4668	Preparing to and directing and guiding the movement of vehicles, plant or machinery in the workplace	2	12	40
42	R/506/3929	Slinging and hand signalling the movement of suspended loads in the workplace	2	10	33
43	L/505/0175	Operating Plant or Machinery for Non-operational Activities in the Workplace	2	10	33
Unit	Unit reference number	Mandatory unit for pathway 10 (Road/Rail)	Level	Credit	Guided learning hours
44	T/506/4670	Preparing and operating road/rail adapted plant in the workplace	2	8	27
Unit	Unit reference number	Optional units for pathway 10 (Road/Rail)	Level	Credit	Guided learning hours
6	A/506/4606	Preparing and operating excavator cranes to lift and transfer loads in the workplace	2	30	100
13	F/506/4607	Preparing and operating rough terrain masted forklifts to lift and transfer loads in the workplace	2	18	60
15	F/506/4610	Preparing and operating telescopic handlers to lift and transfer loads in the workplace	2	25	83
8	R/506/4613	Preparing and operating lorry loaders or knuckle booms to lift and transfer loads in the workplace	2	30	100
18	M/506/4621	Preparing and operating wheeled loading shovels to extract loose materials in the workplace	2	26	87
19	F/506/4624	Preparing and operating skid steer loaders to extract loose materials in the workplace	2	20	67
20	Y/506/4628	Preparing and operating loader compressors to extract loose materials in the workplace	2	16	53
21	J/506/4642	Preparing and operating forward tipping dumpers to receive, transport and discharge materials in the workplace	2	16	53

Unit	Unit reference number	Optional units for pathway 10 (Road/Rail)	Level	Credit	Guided learning hours
22	L/506/4643	Preparing and operating rear tipping dump trucks to receive, transport and discharge materials in the workplace	2	30	100
23	R/506/4644	Preparing and operating tractors with towed equipment for non-agricultural activities in the workplace	2	20	67
28	K/506/4648	Preparing and operating scissor-type mobile elevating work platforms - MEWP - in the workplace	2	12	40
29	M/506/4649	Preparing and operating boom-type mobile elevating work platforms - MEWP - in the workplace	2	14	47
30	H/506/4650	Preparing and operating mast climber-type mobile elevating work platforms - MEWP - in the workplace	2	12	40
Unit	Unit reference number	Mandatory unit for pathway 11 (Attachments)	Level	Credit	Guided learning hours
45	A/506/4671	Preparing and operating plant or machinery attachments in the workplace	2	7	23
Unit	Unit reference number	Optional units for pathway 11 (Attachments)	Level	Credit	Guided learning hours
6	A/506/4606	Preparing and operating excavator cranes to lift and transfer loads in the workplace	2	30	100
13	F/506/4607	Preparing and operating rough terrain mast forklifts to lift and transfer loads in the workplace	2	18	60
15	F/506/4610	Preparing and operating telescopic handlers to lift and transfer loads in the workplace	2	25	83
8	R/506/4613	Preparing and operating lorry loaders or knuckle booms to lift and transfer loads in the workplace	2	30	100

Unit	Unit reference number	Optional units for pathway 11 (Attachments)	Level	Credit	Guided learning hours
18	M/506/4621	Preparing and operating wheeled loading shovels to extract loose materials in the workplace	2	26	87
19	F/506/4624	Preparing and operating skid steer loaders to extract loose materials in the workplace	2	20	67
20	Y/506/4628	Preparing and operating loader compressors to extract loose materials in the workplace	2	16	53
21	J/506/4642	Preparing and operating forward tipping dumpers to receive, transport and discharge materials in the workplace	2	16	53
22	L/506/4643	Preparing and operating rear tipping dump trucks to receive, transport and discharge materials in the workplace	2	30	100
23	R/506/4644	Preparing and operating tractors with towed equipment for non-agricultural activities in the workplace	2	20	67
28	K/506/4648	Preparing and operating scissor-type mobile elevating work platforms - MEWP - in the workplace	2	12	40
29	M/506/4649	Preparing and operating boom-type mobile elevating work platforms - MEWP - in the workplace	2	14	47
30	H/506/4650	Preparing and operating mast climber-type mobile elevating work platforms - MEWP - in the workplace	2	12	40
Unit	Unit reference number	Optional units for pathway 12 (Excavating)	Level	Credit	Guided learning hours
46	T/506/4829	Preparing and operating wheeled loading shovels to excavate in the workplace	2	26	87
47	M/506/4828	Preparing and operating skid steer loaders to excavate in the workplace	2	20	67

Unit	Unit reference number	Mandatory unit for pathway 13 (Sweeping, Cleaning, Clearing)	Level	Credit	Guided learning hours
48	D/506/4677	Preparing and operating plant or machinery to sweep, clean or clear in the workplace	2	13	58
Unit	Unit reference number	Mandatory unit for pathway 14 (Operations Guide)	Level	Credit	Guided learning hours
49	Y/506/4676	Controlling, directing and guiding the operation of plant or machinery in the workplace	2	18	60
Unit	Unit reference number	Optional units for pathway 14 (Operations Guide)	Level	Credit	Guided learning hours
50	J/506/4673	Setting out secondary dimensional work control in the workplace	2	7	23
Unit	Unit reference number	Mandatory unit for pathway 15 (Movement Guide)	Level	Credit	Guided learning hours
41	A/506/4668	Preparing to and directing and guiding the movement of vehicles, plant or machinery in the workplace	2	12	40
Unit	Unit reference number	Additional unit group	Level	Credit	Guided learning hours
51	F/503/1171	Moving, Handling and Storing Resources in the Workplace	2	5	17
43	L/505/0175	Operating Plant or Machinery for Non-operational Activities in the Workplace	2	10	33

## Unit endorsements for Pearson Edexcel Level 2 NVQ Certificate in Plant Operations (Construction)

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Unit	Endorsement (one from each selection, unless otherwise stated)
3	Compact crane: <ul style="list-style-type: none"> <li>• static stabilisers</li> <li>• mobile industrial</li> <li>• luffing static</li> <li>• 360 degree pick and carry</li> </ul>
4	Pedestrian operated tower crane Pedestrian operated tower crane inclined jib
15	Telescopic handler: <ul style="list-style-type: none"> <li>• Industrial telescope</li> <li>• Up to 9 meters</li> <li>• All sizes</li> <li>• All sizes excluding 360 degree</li> <li>• All sizes including 360 degree</li> </ul>
7	Hoist rack and pinion goods Hoist passenger/goods combined Hoist rope operated goods Hoist transport platform
8	Knuckle boom Lorry loader hook Lorry loader clamshell bucket Lorry loader hydraulic tracked
21	Forward tipping dumper: <ul style="list-style-type: none"> <li>• Wheeled</li> <li>• tracked</li> </ul>
22	Dump truck: <ul style="list-style-type: none"> <li>• articulated chassis up to 15 tonne</li> <li>• articulated chassis all sizes</li> <li>• rigid chassis up to 15 tonne</li> <li>• rigid chassis up to 50 tonne</li> <li>• rigid chassis all sizes wheeled</li> <li>• rigid chassis tracked</li> </ul>

Unit	Endorsement (one from each selection, unless otherwise stated)
29	Mobile elevated working platform boom vehicle mounted Mobile elevated working platform boom self-propelled
41	Movement guide marshaller Loader/securer
40	Two of the following required: <ul style="list-style-type: none"> <li>• Drive and operate</li> <li>• Direct and guide movement</li> <li>• Direct and guide operations</li> <li>• Slinger/signaller</li> <li>• Raised loads</li> </ul> Plus one or more of the following endorsements required: <ul style="list-style-type: none"> <li>• Load/securer Slinger Signaller non STGO, non LGV</li> <li>• Load/securer Slinger Signaller non STGO, LGV</li> <li>• Load/securer Slinger Signaller STGO</li> <li>• Load/securer movement guide marshaller non STGO, non LGV</li> <li>• Load/securer movement guide marshaller non STGO, LGV</li> <li>• Load/securer movement guide marshaller STGO</li> <li>• Load/securer plant driven non STGO, non LGV</li> <li>• Load/securer plant driven non STGO, LGV</li> <li>• Load/securer plant driven STGO</li> </ul>
44	Rail road: <ul style="list-style-type: none"> <li>• Forward tipping dumper</li> <li>• MEWP scissor</li> <li>• MEWP boom</li> <li>• Crawler tractor/dozer</li> <li>• Knuckle boom crane</li> <li>• Dump truck – articulated chassis</li> <li>• Dump trunk – rigid chassis</li> <li>• Excavator 360 wheeled</li> <li>• Excavator 360 tracked</li> <li>• Excavator crane</li> <li>• Crane</li> <li>• Rough terrain forklift truck</li> <li>• Telescopic handler</li> <li>• Agricultural tractor</li> </ul>

Unit	Endorsement (one from each selection, unless otherwise stated)
45	Rail thimble Rail flail Rail ballast brush Rail ballast/material movement vacuum unit Rail hydraulic rail beam Rail hydraulic sleeper grab Rail trailer Rail tamper Rail vacuum lifter Rail grapple/log grap Auger Sweeper Pecker/hammer Mower Grab roller Mobile work platform Fork Lifthook Bucket Lifting jib Crusher
50	Three or more of the following endorsements required: <ul style="list-style-type: none"> <li>● Lines</li> <li>● Levels</li> <li>● Depths</li> <li>● Areas</li> <li>● Heights</li> <li>● Angles</li> </ul>
42	The following endorsement required in own area of work: <ul style="list-style-type: none"> <li>● Slinger signaller – loader securer only</li> </ul>

Unit	Endorsement (one from each selection, unless otherwise stated)
43	Two of the following endorsements required: <ul style="list-style-type: none"> <li>• Hand-operated power tools</li> <li>• Static machinery</li> <li>• Pedestrian controlled power equipment</li> <li>• Tracked plant</li> <li>• Wheeled plant</li> <li>• Rollers</li> </ul>
48	Road sweeper Pavement sweeper Self-powered sweeper Pedestrian controlled sweeper Gully cleaner Gully sucker Pedestrian controlled cleaner

## Pearson Edexcel Level 2 NVQ Diploma in Plant Operations (Construction)

The learner will need to meet the requirements outlined in the table below before the qualification can be awarded.

Minimum number of credits that must be achieved	45
Minimum number of credits that must be achieved at Level 2 or above	43

Unit	Unit reference number	Mandatory units	Level	Credit	Guided learning hours
1	A/503/1170	Conforming to General Health, Safety and Welfare in the Workplace.	1	2	7
2	J/503/1169	Conforming to Productive Working Practices in the Workplace	2	3	10

Unit	Unit reference number	Optional units for pathway 1 (Cranes and Specialist Lifting)	Level	Credit	Guided learning hours
52	D/506/4601	Preparing and operating crawler cranes above 10 tonnes to lift and transfer loads in the workplace	2	80	265
53	H/506/4602	Preparing and operating tower cranes to lift and transfer loads in the workplace	2	80	267
54	K/506/4603	Preparing and operating mobile cranes to lift and transfer loads in the workplace	2	95	317
55	L/506/4612	Preparing and operating crawler-tractor side booms to lift and transfer loads in the workplace	2	50	167
Unit	Unit reference number	Optional units for pathway 2 (Extracting)	Level	Credit	Guided learning hours
56	M/506/4618	Preparing and operating draglines to extract ground and/or loose materials in the workplace	2	60	200
57	T/506/4619	Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace	2	80	267

Unit	Unit reference number	Optional units for pathway 2 (Extracting)	Level	Credit	Guided learning hours
58	A/506/4623	Preparing and operating tracked loading shovels to extract ground and loose materials in the workplace	2	80	267
59	J/506/4625	Preparing and operating motorised scrapers to extract, transport and distribute materials in the workplace	2	80	267
60	R/506/4627	Preparing and operating trenchers to extract ground and/or loose materials in the workplace	2	50	167
61	D/506/4629	Preparing and operating 360 degree excavators to extract ground, face and/or loose materials in the workplace	2	80	267
62	R/506/4630	Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace	2	80	267
Unit	Unit reference number	Optional units for pathway 3 (Excavating)	Level	Credit	Guided learning hours
57	T/506/4619	Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace	2	80	267
62	R/506/4630	Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace	2	80	267
63	Y/506/4631	Preparing and operating draglines to excavate ground materials in the workplace	2	60	200
64	H/506/4728	Preparing and operating 360 degree excavators to excavate ground in the workplace	2	80	267
65	D/506/4632	Preparing and operating trenchers to excavate ground in the workplace	2	50	167
66	F/506/4638	Preparing and operating tracked loading shovels to excavate ground and loose materials in the workplace	2	80	267

Unit	Unit reference number	Optional units for pathway 4 (Constructing and Forming)	Level	Credit	Guided learning hours
67	A/506/4640	Preparing and operating graders to form and shape ground and/or loose materials in the workplace	2	70	233
62	R/506/4630	Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace	2	80	267
68	J/506/9050	Preparing and operating formwork rigs to construct and form in the workplace	2	52	173
Unit	Unit reference number	Mandatory unit for pathway 5 (Transporting Loads)	Level	Credit	Guided learning hours
69	F/506/4641	Preparing and operating truck-mounted boom concrete pumps to receive, pump and discharge materials in the workplace	2	70	233
Unit	Unit reference number	Optional units for pathway 6 (Laying and Distributing)	Level	Credit	Guided learning hours
62	R/506/4630	Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace	2	80	267
70	K/506/4651	Preparing and operating soil stabilisers to lay and distribute materials in the workplace	2	40	133
Unit	Unit reference number	Mandatory unit for pathway 7 (Road/Rail)	Level	Credit	Guided learning hours
44	T/506/4670	Preparing and operating road/rail adapted plant in the workplace	2	8	27
Unit	Unit reference number	Optional units for pathway 7 (Road/Rail)	Level	Credit	Guided learning hours
57	T/506/4619	Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace	2	80	267
58	A/506/4623	Preparing and operating tracked loading shovels to extract ground and loose materials in the workplace	2	80	267

Unit	Unit reference number	Optional units for pathway 7 (Road/Rail)	Level	Credit	Guided learning hours
61	D/506/4629	Preparing and operating 360 degree excavators to extract ground, face and/or loose materials in the workplace	2	80	267
62	R/506/4630	Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace	2	80	267
64	H/506/4728	Preparing and operating 360 degree excavators to excavate ground in the workplace	2	80	267
Unit	Unit reference number	Mandatory unit for Pathway 8 (Attachments)	Level	Credit	Guided learning hours
45	A/506/4671	Preparing and operating plant or machinery attachments in the workplace	2	7	23
Unit	Unit reference number	Optional units for pathway 8 (Attachments)	Level	Credit	Guided learning hours
57	T/506/4619	Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace	2	80	267
58	A/506/4623	Preparing and operating tracked loading shovels to extract ground and loose materials in the workplace	2	80	267
61	D/506/4629	Preparing and operating 360 degree excavators to extract ground, face and/or loose materials in the workplace	2	80	267
62	R/506/4630	Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace	2	80	267
64	H/506/4728	Preparing and operating 360 degree excavators to excavate ground in the workplace	2	80	267

Unit	Unit reference number	Mandatory unit for pathway 9 (In-shore Marine)	Level	Credit	Guided learning hours
71	L/506/4674	Preparing and operating plant or machinery from a floating vessel in the workplace	2	36	120
Unit	Unit reference number	Optional units for pathway 9 (In-shore Marine)	Level	Credit	Guided learning hours
3	Y/506/4600	Preparing and operating compact cranes to lift and transfer loads in the workplace	2	30	100
52	D/506/4601	Preparing and operating crawler cranes above 10 tonnes to lift and transfer loads in the workplace	2	80	265
54	K/506/4603	Preparing and operating mobile cranes to lift and transfer loads in the workplace	2	95	317
4	M/506/4604	Preparing and operating pedestrian operated tower cranes to lift and transfer loads in the workplace	2	30	100
6	A/506/4606	Preparing and operating excavator cranes to lift and transfer loads in the workplace	2	30	100
15	F/506/4610	Preparing and operating telescopic handlers to lift and transfer loads in the workplace	2	25	83
8	R/506/4613	Preparing and operating lorry loaders or knuckle booms to lift and transfer loads in the workplace	2	30	100
63	Y/506/4631	Preparing and operating draglines to excavate ground materials in the workplace	2	60	200
64	H/506/4728	Preparing and operating 360 degree excavators to excavate ground in the workplace	2	80	267
69	F/506/4641	Preparing and operating truck-mounted boom concrete pumps to receive, pump and discharge materials in the workplace	2	70	233
24	M/506/5087	Preparing and operating trailer-mounted concrete pumps to receive, pump and discharge materials in the workplace	2	18	60

Unit	Unit reference number	Optional units for pathway 9 (In-shore Marine)	Level	Credit	Guided learning hours
29	M/506/4649	Preparing and operating boom-type mobile elevating work platforms – MEWP - in the workplace	2	14	47
72	F/506/4672	Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace	2	7	23
Unit	Unit reference number	Mandatory units for pathway 10 (Erecting and Dismantling)	Level	Credit	Guided learning hours
42	R/506/3929	Slinging and hand signalling the movement of suspended loads in the workplace	2	10	33
73	R/506/4675	Erecting and dismantling plant - cranes and rigs - in the workplace	2	36	120
51	F/503/1171	Moving, Handling and Storing Resources in the Workplace	2	5	17
Unit	Unit reference number	Mandatory units for pathway 11 (Road Plant or Machinery)	Level	Credit	Guided learning hours
74	T/506/5088	Preparing, operating and controlling operations of road plant or machinery in the workplace	2	49	163
Unit	Unit reference number	Additional unit group	Level	Credit	Guided learning hours
51	F/503/1171	Moving, Handling and Storing Resources in the Workplace	2	5	17
43	L/505/0175	Operating Plant or Machinery for Non-operational Activities in the Workplace	2	10	33

## Unit endorsements for Pearson Edexcel Level 2 NVQ Diploma in Plant Operations (Construction)

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Unit	Endorsement (one from each selection, unless otherwise stated)
3	Compact crane: <ul style="list-style-type: none"> <li>• static stabilisers</li> <li>• mobile industrial</li> <li>• luffing static</li> <li>• 360 degree pick and carry</li> </ul>
4	Pedestrian operated tower crane Pedestrian operated tower crane inclined jib
15	Telescopic handler: <ul style="list-style-type: none"> <li>• Industrial telescope</li> <li>• Up to 9 meters</li> <li>• All sizes</li> <li>• All sizes excluding 360 degree</li> <li>• All sizes including 360 degree</li> </ul>
8	Knuckle boom Lorry loader hook Lorry loader clamshell bucket Lorry loader hydraulic tracked
21	Forward tipping dumper: <ul style="list-style-type: none"> <li>• Wheeled</li> <li>• tracked</li> </ul>
29	Mobile elevated working platform boom vehicle mounted Mobile elevated working platform boom self-propelled

Unit	Endorsement (one from each selection, unless otherwise stated)
44	Rail road: <ul style="list-style-type: none"> <li>• Forward tipping dumper</li> <li>• MEWP scissor</li> <li>• MEWP boom</li> <li>• Crawler tractor/dozer</li> <li>• Knuckle boom crane</li> <li>• Dump truck – articulated chassis</li> <li>• Dump trunk – rigid chassis</li> <li>• Excavator 360 wheeled</li> <li>• Excavator 360 tracked</li> <li>• Excavator crane</li> <li>• Crane</li> <li>• Rough terrain forklift truck</li> <li>• Telescopic handler</li> <li>• Agricultural tractor</li> </ul>
42	The following endorsement required in own area of work: <ul style="list-style-type: none"> <li>• Slinger signaller – loader securer only</li> </ul>
43	Two of the following endorsements required: <ul style="list-style-type: none"> <li>• Hand-operated power tools</li> <li>• Static machinery</li> <li>• Pedestrian controlled power equipment</li> <li>• Tracked plant</li> <li>• Wheeled plant</li> <li>• Rollers</li> </ul>
48	Road sweeper Pavement sweeper Self-powered sweeper Pedestrian controlled sweeper Gully cleaner Gully sucker Pedestrian controlled cleaner
45	Chipper Paver Spreader Planer

Unit	Endorsement (one from each selection, unless otherwise stated)
53	Compact crane: <ul style="list-style-type: none"> <li>• Static stabilisers</li> <li>• Mobile industrial</li> <li>• Luffing static</li> <li>• 360 pick and carry</li> </ul>
54	Mobile crane: <ul style="list-style-type: none"> <li>• Blocked duties</li> <li>• Pick and carry duties only</li> <li>• All duties</li> </ul>
57	Excavator 170 crawler and wheeled below 5 tonne Excavator 170 crawler and wheeled above 5 tonne
61	Excavator 360 below 10 tonne tracked Excavator 360 below 10 tonne wheeled Excavator 360 above 10 tonne tracked Excavator 360 above 10 tonne wheeled
62	Extract Excavate Construct/form Lay/distribute
65	Excavator 360 below 10 tonne tracked Excavator 360 below 10 tonne wheeled Excavator 360 above 10 tonne tracked Excavator 360 above 10 tonne wheeled
68	Formwork rig: <ul style="list-style-type: none"> <li>• Slipform vertical</li> <li>• Slipform horizontal</li> <li>• Climbing/jumping</li> </ul>
72	Generators Pumps Pedestrian operated plant or machines Mixers Compressors Self-powered tools

Unit	Endorsement (one from each selection, unless otherwise stated)
71	<p>Six of the following endorsements required:</p> <ul style="list-style-type: none"> <li>• Lift</li> <li>• Transfer</li> <li>• Extract</li> <li>• Excavate</li> <li>• Construct</li> <li>• Form</li> <li>• Receive</li> <li>• Access</li> <li>• Distribute</li> <li>• Demolish</li> <li>• Process</li> </ul>
73	<p>Mobile crane  Crawler crane  Mobile tower crane  Self-erect equipment  Piling rig  Demolition rig  Drilling rig</p>

## 5 Programme delivery

Centres are free to offer these qualifications using any mode of delivery (for example full-time, part-time, evening only, distance learning) that meets learners' needs. Learners must be in employment or working with a training provider on a programme so that they can develop and demonstrate the occupational competence required.

Whichever mode of delivery is used, centres must make sure that learners have access to specified resources and to the sector specialists delivering and assessing the units. Centres must adhere to the Pearson policies that apply to the different modes of delivery. Our policy on *Collaborative arrangements for the delivery of vocational qualifications* can be found on our website.

There are various approaches to delivering a successful competence-based qualification. The section below outlines elements of good practice that centres can adopt in relation to learner recruitment, preparation and support, training and assessment delivery, and employer engagement.

### Elements of good practice

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#### Learner recruitment, preparation and support

Good practice in relation to learner recruitment, preparation and support includes the following.

- Providing initial advice and guidance, including work tasters, to potential learners to give them an insight into the relevant industry and the learning programme.
- Using a range of appropriate and rigorous selection methods to ensure that learners are matched to the programme best suited to their needs.
- Carrying out a thorough induction for learners to ensure that they completely understand the programme and what is expected of them. The induction should include, for example, the requirements of the programme, an initial assessment of current competency levels, assessment of individual learning styles, identification of training needs, an individual learning plan, details of training delivery and the assessment process. It is good practice to involve the employer in the induction process. This helps employers to understand what will be taking place during the programme and enables them to start building a relationship with the centre to support the effective delivery of the programme.
- Keeping in regular contact with the learner to keep them engaged and motivated, and ensuring that there are open lines of communication between the learner, the assessor, the employer and teaching staff.

## Training and assessment delivery

Good practice in relation to training and assessment delivery includes the following.

- Offering flexible delivery and assessment to meet the needs of the employer and learner, through the use of a range of approaches, for example virtual learning environments (VLEs), online lectures, video, printable online resources, virtual visits, webcams for distance training, e-portfolios.
- Planning opportunities for the development and practising of skills on the job. On-the-job training presents an excellent opportunity to develop the learner's routine expertise, resourcefulness, craftpersonship and business-like attitude. It is therefore important that there is intentional structuring of practice and guidance to supplement the learning and development provided through engagement in everyday work activities. Learners need to have structured time to learn and practice their skills separate from their everyday work activities. Teaching and learning methods, such as coaching, mentoring, shadowing, reflective practice, collaboration and consultation, could be used in this structured on-the-job learning.
- Integrating the delivery and assessment of Personal, Learning and Thinking Skills (PLTS) and Employment Rights and Responsibilities (ERR) if the programme is being delivered as a part of an Apprenticeship. It is important that learners understand the relevance of these skills in the workplace and are aware of when and how they will be developing them.
- Developing an holistic approach to assessment by matching evidence to different assessment criteria, learning outcomes and units as appropriate, thereby reducing the assessment burden on learners and assessors. It is good practice to draw up an assessment plan that aligns the units with the learning process and the acquisition of knowledge and skills, and that indicates how and when the units will be assessed.
- Discussing and agreeing with the learner and employer suitable times, dates and work areas where assessment will take place. Learners and employers should be given regular and relevant feedback on performance and progress.

## Employer engagement

Good practice in relation to employer engagement includes the following.

- Communicating with employers at the start of the programme to understand their business context and requirements so that the programme can be tailored to meet their needs.
- Working with the employer to ensure that learners are allocated a mentor in the workplace to assist them in the day-to-day working environment and to act as a contact for the assessor/tutor.
- Helping the employer to better understand their role in the delivery of the programme. It is important that employers understand that sufficient and relevant work must be given to learners in order to provide a culture of learning and to ensure that they are given every opportunity to participate in aspects of continuous professional development (CPD).

## 6 Centre resource requirements

As part of the approval process, centres must make sure that the resource requirements below are in place before offering the qualifications.

### General resource requirements

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- Centres must have the appropriate physical resources to support delivery and assessment of the qualification. For example, a workplace in line with industry standards, or a Realistic Working Environment (RWE), where permitted, as specified in the assessment requirements/strategy for the sector, equipment, IT, learning materials, teaching rooms.
- Where RWE is permitted, it must offer the same conditions as the normal, day-to-day working environment, with a similar range of demands, pressures and requirements for cost-effective working.
- Centres must meet any specific human and physical resource requirements outlined in the assessment requirements/strategy in *Annexe A*. Staff assessing learners must meet the occupational competence requirements within the overarching assessment requirements/strategy for the sector.
- There must be systems in place to ensure continuing professional development for staff delivering the qualification.
- Centres must have appropriate health and safety policies, procedures and practices in place for the delivery and assessment of the qualification.
- Centres must deliver the qualification in accordance with current equality legislation. For further details on Pearson's commitment to the Equality Act 2010, please see *Section 7, Access and recruitment*. For full details on the Equality Act 2010, please go to [www.legislation.gov.uk](http://www.legislation.gov.uk).

## 7 Access and recruitment

Our policy on access to our qualifications is that:

- they should be available to everyone who is capable of reaching the required standards
- they should be free from barriers that restrict access and progression
- there should be equal opportunities for all wishing to access the qualifications.

Centres must ensure that their learner recruitment process is conducted with integrity. This includes ensuring that applicants have appropriate information and advice about the qualification to ensure that it will meet their needs.

Centres should review applicants' prior qualifications and/or experience, considering whether this profile shows that they have the potential to achieve the qualification.

### **Prior knowledge, skills and understanding**

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No prior knowledge, understanding, skills or qualifications are required before learners register for this qualification.

### **Access to qualifications for learners with disabilities or specific needs**

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Equality and fairness are central to our work. Pearson's Equality Policy requires all learners to have equal opportunity to access our qualifications and assessments and that our qualifications are awarded in a way that is fair to every learner.

We are committed to making sure that:

- learners with a protected characteristic (as defined by the Equality Act 2010) are not, when they are undertaking one of our qualifications, disadvantaged in comparison to learners who do not share that characteristic
- all learners achieve the recognition they deserve from undertaking a qualification and that this achievement can be compared fairly to the achievement of their peers.

For learners with disabilities and specific needs, the assessment of their potential to achieve the qualification must identify, where appropriate, the support that will be made available to them during delivery and assessment of the qualification. Please see the information regarding reasonable adjustments and special consideration in *Section 8, Assessment*.

## 8 Assessment

To achieve a pass for the full qualifications, the learner must achieve all the units required in the stated qualification structures.

### Language of assessment

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Assessment of the internally assessed units may be in English, Welsh or Irish. If assessment is to be carried out in either Welsh or Irish then centres must inform Pearson at the point of learner registration.

A learner taking the qualifications may be assessed in British or Irish Sign Language where it is permitted for the purpose of reasonable adjustment.

Further information on the use of language in qualifications is available in our policy document *Use of languages in qualifications policy*, available on our website.

Further information on access arrangements can be found in the Joint Council for Qualifications (JCQ) document *Access Arrangements, Reasonable Adjustments and Special Consideration for General and Vocational qualifications*. Both documents are on our website.

### Internal assessment

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The units in these qualifications are assessed through an internally and externally quality assured Portfolio of Evidence made up of evidence gathered during the course of the learner's work.

Each unit has specified learning outcomes and assessment criteria. To pass each unit the learner must:

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

The learner must have an assessment record that identifies the assessment criteria that have been met. The assessment record should be cross-referenced to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment. Suitable centre documentation should be used to form an assessment record.

It is important that the evidence provided to meet the assessment criteria for the unit and learning outcomes is:

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

Learners can provide evidence of occupational competence 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 programme. The evidence provided must meet the requirements of the Sector Skills Council’s assessment requirements/strategy
- the **Recognition of Prior Learning (RPL)** – where a learner can demonstrate that they can meet a unit’s assessment criteria through knowledge, understanding or skills they already possess without undertaking a course of development. They must submit sufficient, reliable, authentic and valid evidence for assessment. Evidence submitted that is based on RPL should give the centre confidence that the same level of skill, understanding and knowledge exists at the time of claim as existed at the time the evidence was produced. RPL is acceptable for accrediting a unit, several units, or a whole qualification. Further guidance is available in our policy document *Recognition of Prior Learning Policy and Process*, available on our website
- a combination of these.

## Assessment strategy

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The assessment strategy for these qualifications is included in *Annexe A*. It sets out the overarching assessment principles and the framework for assessing the units to ensure that these qualifications remains valid and reliable. It has been developed by ConstructionSkills in partnership with employers, training providers, awarding organisations and the regulatory authorities.

## Types of evidence

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To achieve a unit, the learner must gather evidence that shows that they have met the required standard specified in the assessment criteria, Pearson's quality assurance arrangements (please see *Section 10, Quality assurance of centres*) and the requirements of the assessment requirements/strategy given in *Annexe A*.

In line with the assessment requirements/strategy, evidence for internally assessed units can take a variety of forms as indicated below:

- direct observation of the learner's performance by their assessor (O)
- outcomes from oral or written questioning (Q&A)
- products of the learner's work (P)
- personal statements and/or reflective accounts (RA)
- outcomes from simulation (S)
- professional discussion (PD)
- authentic statements/witness testimony (WT)
- expert witness testimony (EWT)
- evidence of Recognition of Prior Learning (RPL).

Learners can use the abbreviations in their portfolios for cross-referencing purposes.

Learners can also use one piece of evidence to prove their knowledge, skills and understanding across different assessment criteria and/or across different units. It is not necessary for learners to have each assessment criterion assessed separately. They should be encouraged to reference evidence to the relevant assessment criteria. However, the evidence provided for each unit must be clearly reference the unit being assessed. Evidence must be available to the assessor, the internal verifier and the Pearson standards verifier.

Any specific evidence requirements for a unit are given in the *Assessment* section of the unit.

Further guidance on the requirements for centre quality assurance and internal verification processes is available on our website. Please see *Section 12, Further information and useful publications* for details.

## Appeals

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Centres must have a policy for dealing with appeals from learners. Appeals may relate to incorrect assessment decisions or unfairly conducted assessment. The first step in such a policy is a consideration of the evidence by a Lead Internal Verifier or other member of the programme team. The assessment plan should allow time for potential appeals after learners have been given assessment decisions.

Centres must document all learners' appeals and their resolutions. Further information on the appeals process can be found in the document *Enquiries and appeals about Pearson vocational qualifications policy*, which is available on our website.

## Dealing with malpractice

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Centres must have a policy for dealing with malpractice by learners. This policy must follow the *Pearson Assessment Malpractice Policy*, which is available on our website. Centres must report malpractice to Pearson, particularly if any units have been subject to quality assurance or certification.

## Reasonable adjustments to assessment

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Centres are able to make adjustments to assessments to take account of the needs of individual learners in line with the guidance given in the document *Pearson Supplementary Guidance for Reasonable Adjustment and Special Consideration in Vocational Internally Assessed Units*. In most instances, adjustments can be achieved by following the guidance; for example allowing the use of assistive technology or adjusting the format of the evidence. We can advise you if you are uncertain as to whether an adjustment is fair and reasonable. Any reasonable adjustment must reflect the normal learning or working practice of a learner in a centre or working within the occupational area.

Further information on access arrangements can be found in the Joint Council for Qualifications (JCQ) document *Access Arrangements, Reasonable Adjustments and Special Consideration for General and Vocational qualifications*.

Both documents are on our website.

## Special consideration

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Centres must operate special consideration in line with the guidance given in the document *Pearson Supplementary Guidance for Reasonable Adjustment and Special Consideration in Vocational Internally Assessed Units*. Special consideration may not be applicable in instances where:

- assessment requires the demonstration of practical competence
- criteria have to be met fully
- units/qualifications confer licence to practice.

Centres cannot apply their own special consideration; applications for special consideration must be made to Pearson and can be made only on a case-by-case basis. A separate application must be made for each learner and certification claims must not be made until the outcome of the application has been received.

Further information on special consideration can be found in the Joint Council for Qualifications (JCQ) document *Access Arrangements, Reasonable Adjustments and Special Consideration for General and Vocational qualifications*.

Both of the documents mentioned above are on our website.

## 9 Centre recognition and approval

### Centre recognition

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Centres that have not previously offered Pearson Edexcel vocational qualifications need to apply for and be granted centre recognition and approval as part of the process for approval to offer individual qualifications.

Existing centres will be given 'automatic approval' for a new qualification if they are already approved for a qualification that is being replaced by a new qualification and the conditions for automatic approval are met.

Guidance on seeking approval to deliver Pearson vocational qualifications can be found on our website.

### Approvals agreement

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All centres are required to enter into an approval agreement, which is a formal commitment by the head or principal of a centre, to meet all the requirements of the specification and any associated codes, conditions or regulations. Pearson 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.

# 10 Quality assurance of centres

Quality assurance is at the heart of vocational qualifications. Centres are required to declare their commitment to ensuring quality and to giving learners appropriate opportunities that lead to valid and accurate assessment outcomes.

Centres must follow quality assurance requirements for standardisation of assessors and internal verifiers and the monitoring and recording of assessment processes. Pearson uses external quality assurance procedures to check that all centres are working to national standards. It gives us the opportunity to identify and provide support to safeguard certification and quality standards. It also allows us to recognise and support good practice.

Centres offering competence-based qualifications will usually receive two standards verification visits per year (a total of two days per year). The exact frequency and duration of standards verifier visits will reflect the centre's performance, taking account of the:

- number of assessment sites
- number and throughput of learners
- number and turnover of assessors
- number and turnover of internal verifiers.

For centres offering a full Pearson BTEC Apprenticeship (i.e. all elements of the Apprenticeship are delivered with Pearson through registration of learners on a BTEC Apprenticeship framework) a single standards verifier will normally be allocated to verify all elements of the BTEC Apprenticeship programme. Centres should make use of our one-click learner registration to access this facility. If a centre is also offering stand-alone NVQs/Competence-based qualifications in the same sector as a full BTEC Apprenticeship, the same standards verifier should be allocated. If a centre is also offering stand-alone BTEC qualifications in the same sector as a full BTEC Apprenticeship, a different quality assurance model applies.

In order for certification to be released, confirmation is required that the National Occupational Standards (NOS) for assessment and verification, and for the specific occupational sector are being met consistently.

For further details, please go to the *NVQ Quality Assurance Centre Handbook*, the *BTEC Apprenticeships Quality Assurance Handbook* and the *Pearson Edexcel NVQs, SVQs and competence-based qualifications – Delivery Requirements and Quality Assurance Guidance* on our website.

# 11 Unit format

Each unit has the following sections.

## Unit title

This is the formal title of the unit that will appear on the learner's certificate.

## Unit reference number

Each unit is assigned a unit reference number that appears with the unit title on the Register of Regulated Qualifications.

## Level

All units and qualifications have a level assigned to them. The level assigned is informed by the level descriptors defined by Ofqual, the qualifications regulator.

## Credit value

All units have a credit value. When a learner achieves a unit, they gain the specified number of credits. The minimum credit value is 1 and credits can be awarded in whole numbers only.

## Guided learning hours

Guided Learning Hours (GLH) is the number of hours that a centre delivering the qualification needs to provide. Guided learning means activities that directly or immediately involve tutors and assessors in teaching, supervising, and invigilating learners, for example lectures, tutorials, online instruction and supervised study.

## Unit summary

This summarises the purpose of the unit and the learning the unit offers.

## Unit assessment requirements/evidence requirements

The SSC/B set the assessment/evidence requirements. Learners must provide evidence according to each of the requirements stated in this section.

## **Learning outcomes**

The learning outcomes set out what a learner will know, understand or be able to do as the result of a process of learning.

## **Assessment criteria**

Descriptions of the requirements a learner is expected to meet to demonstrate that a learning outcome has been achieved.

# Unit 1: Conforming to General Health, Safety and Welfare in the Workplace

**Unit reference number:** A/503/1170

**Level:** 1

**Credit value:** 2

**Guided learning hours:** 7

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## 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.

## Unit 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.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Comply with all workplace health, safety and welfare legislation requirements.	1.1	Comply with information from workplace inductions and any health, safety and welfare briefings attended relevant to the occupational area.			
		1.2	Comply with information from workplace inductions and any health, safety and welfare briefings attended relevant to the occupational area.			
		1.3	Comply with statutory requirements, safety notices and warning notices displayed within the workplace and/or on equipment.			
		1.4	State why and when health and safety control equipment, identified by the principles of protection, should be used relating to types, purpose and limitations of each type, the work situation, occupational use and the general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		1.5	State how the health and safety control equipment relevant to the work should be used in accordance with the given instructions.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		1.6	State which types of health, safety and welfare legislation, notices and warning signs are relevant to the occupational area and associated equipment.			
		1.7	State why health, safety and welfare legislation, notices and warning signs are relevant to the occupational area.			
		1.8	State how to comply with control measures that have been identified by risk assessments and safe systems of work.			
2	Recognise hazards associated with the workplace that have not been previously controlled and report them in accordance with organisational procedures.	2.1	Report any hazards created by changing circumstances within the workplace in accordance with organisational procedures.			
		2.2	List typical hazards associated with the work environment and occupational area in relation to resources, substances, asbestos, equipment, obstructions, storage, services and work activities.			
		2.3	List the current Health and Safety Executive top ten safety risks.			
		2.4	List the current Health and Safety Executive top five health risks.			
		2.5	State how changing circumstances within the workplace could cause hazards.			
		2.6	State the methods used for reporting changed circumstances, hazards and incidents in the workplace.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Comply with organisational policies and procedures to contribute to health, safety and welfare.	3.1	Interpret and comply with given instructions to maintain safe systems of work and quality working practices.			
		3.2	Contribute to discussions by offering/providing feedback relating to health, safety and welfare.			
		3.3	Contribute to the maintenance of workplace welfare facilities in accordance with workplace welfare procedures.			
		3.4	Safely store health and safety control equipment in accordance with given instructions.			
		3.5	Dispose of waste and/or consumable items in accordance with legislation.			
		3.6	State the organisational policies and procedures for health, safety and welfare, in relation to: <ul style="list-style-type: none"> <li>● dealing with accidents and emergencies associated with the work and environment</li> <li>● methods of receiving or sourcing information</li> <li>● reporting</li> <li>● stopping work</li> <li>● evacuation</li> <li>● fire risks and safe exit procedures</li> <li>● consultation and feedback.</li> </ul>			
		3.7	State the appropriate types of fire extinguishers relevant to the work.			
		3.8	State how and when the different types of fire extinguishers are used in accordance with legislation and official guidance.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Work responsibly to contribute to workplace health, safety and welfare whilst carrying out work in the relevant occupational area.	4.1	Demonstrate behaviour which shows personal responsibility for general workplace health, safety and welfare.			
		4.2	State how personal behaviour demonstrates responsibility for general workplace health, safety and welfare, in relation to: <ul style="list-style-type: none"> <li>recognising when to stop work in the face of serious and imminent danger to self and/or others</li> <li>contributing to discussions and providing feedback</li> <li>reporting changed circumstances and incidents in the workplace</li> <li>complying with the environmental requirements of the workplace.</li> </ul>			
		4.3	Give examples of how the behaviour and actions of individuals could affect others within the workplace.			
5	Comply with and support all organisational security arrangements and approved procedures.	5.1	Provide appropriate support for security arrangements in accordance with approved procedures: <ul style="list-style-type: none"> <li>during the working day</li> <li>on completion of the day's work</li> <li>for unauthorised personnel (other operatives and the general public)</li> <li>for theft.</li> </ul>			
		5.2	State how security arrangements are implemented in relation to the workplace, the general public, site personnel and resources.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 2: Conforming to Productive Working Practices in the Workplace

**Unit reference number:** J/503/1169

**Level:** 2

**Credit value:** 3

**Guided learning hours:** 10

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## 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.

Unit 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.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Communicate with others to establish productive work practices.	1.1	Communicate in an appropriate manner with line management, colleagues and/or customers to ensure that work is carried out productively.			
		1.2	Describe the different methods of communicating with line management, colleagues and customers.			
		1.3	Describe how to use different methods of communication to ensure that the work carried out is productive.			
2	Follow organisational procedures to plan the sequence of work.	2.1	Interpret relevant information from organisational procedures in order to plan the sequence of work.			
		2.2	Plan the sequence of work, using appropriate resources, in accordance with organisational procedures to ensure work is completed productively.			
		2.3	Describe how organisational procedures are applied to ensure work is planned and carried out productively, in relation to: <ul style="list-style-type: none"> <li>• using resources for own and other's work requirements</li> <li>• allocating appropriate work to employees</li> <li>• organising the work sequence</li> <li>• reducing carbon emissions.</li> </ul>			
		2.4	Describe how to contribute to zero/low carbon work outcomes within the built environment.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain relevant records in accordance with the organisational procedures.	3.1	Complete relevant documentation according to the occupation as required by the organisation.			
		3.2	Describe how to complete and maintain documentation in accordance with organisational procedures, in relation to: <ul style="list-style-type: none"> <li>• job cards</li> <li>• worksheets</li> <li>• material/resource lists</li> <li>• time sheets.</li> </ul>			
		3.3	Explain the reasons for ensuring documentation is completed clearly and within given timescales.			
4	Maintain good working relationships when conforming to productive working practices.	4.1	Carry out work productively, to the agreed specification, in conjunction with line management, colleagues, customers and/or other relevant people involved in the work to maintain good working relationships.			
		4.2	Apply the principles of equality and diversity and respect the needs of individuals when communicating and working with others.			
		4.3	Describe how to maintain good working relationships, in relation to: <ul style="list-style-type: none"> <li>• individuals</li> <li>• customer and operative</li> <li>• operative and line management</li> <li>• own and other occupations.</li> </ul>			
		4.4	Describe why it is important to work effectively with line management, colleagues and customers.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		4.5	Describe how working relationships could have an effect on productive working.			
		4.6	Describe how to apply principles of equality and diversity when communicating and working with others.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 3: **Preparing and operating compact cranes to lift and transfer loads in the workplace**

**Unit reference number:** Y/506/4600

**Level:** 2

**Credit value:** 30

**Guided learning hours:** 100

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## **Unit summary**

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

## **Unit 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 compact cranes to lift and transfer loads 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:

- compact crane – static stabiliser
- compact crane – mobile industrial
- compact crane – luffing static
- compact crane – 360 degree pick-and-carry.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of compact cranes to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of compact cranes to lift and transfer loads.</li> </ul>			
2	Organise with others the sequence and operation in which lifting operations using compact cranes 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	Describe how to organise resources prior to and during lifting operations with compact cranes.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads using compact cranes.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out lifting operations using compact cranes.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during lifting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out lifting operations using compact cranes in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>safe use and storage of lifting accessories</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	<p>Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to compact crane use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to:</p> <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using compact cranes.	5.1	Request and select resources associated with compact cranes in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	<p>Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and method of work.			
		5.6	Describe how to identify weight, bearing, pressure, quantity, length and area associated with the method/procedures to carry out lifting operations with compact cranes.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift, transfer and place loads using compact cranes to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using compact cranes: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up and operate compact cranes to lift, transfer and place a variety of loads to given working instructions.			
		8.4	Shut down and secure compact cranes.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the crane for the lifting and transferring operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify characteristics, type, weight and position of loads for lifting and transferring</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• secure and balance loads for lifting</li> <li>• lift, remove and transfer loads</li> <li>• position, place and set down loads</li> <li>• confirm load stability, security and release</li> <li>• attach and remove guide ropes and aids</li> <li>• be on the public highway</li> <li>• shut down and secure the crane</li> <li>• use hand tools and ancillary equipment</li> <li>• use, handle and store lifting accessories.</li> </ul>			
	<p>8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and lifting and transferring loads.</p>			
	<p>8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to lift and transfer loads.</p>			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 4: Preparing and operating pedestrian operated tower cranes to lift and transfer loads in the workplace

**Unit reference number:** M/506/4604

**Level:** 2

**Credit value:** 30

**Guided learning hours:** 100

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## Unit summary

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

## Unit 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 pedestrian operated tower cranes to lift and transfer loads 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:

- pedestrian operated tower crane – up to 36m/100 m/t
- pedestrian operated tower crane – inclined jib.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of pedestrian operated tower cranes to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of pedestrian operated tower cranes to lift and transfer loads.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Organise with others the sequence and operation in which lifting operations using pedestrian operated tower cranes 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	Describe how to organise resources prior to and during lifting operations with pedestrian operated tower cranes.			
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads using pedestrian operated tower cranes.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Maintain safe and healthy working practices when preparing for and carrying out lifting operations using pedestrian operated tower cranes.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during lifting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out lifting operations using pedestrian operated tower cranes in relation to two or more of the following: <ul style="list-style-type: none"> <li>• safe use and storage of plant or machinery</li> <li>• safe use and storage of tools and equipment</li> <li>• safe use and storage of lifting accessories</li> <li>• specific risks to health.</li> </ul>			
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to pedestrian operated tower crane use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using pedestrian operated tower cranes.	5.1	Request and select resources associated with pedestrian operated tower cranes in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and method of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out lifting operations with pedestrian operated tower cranes.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of progress charts, timetables and estimated times</li> <li>• organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift, transfer and place loads using pedestrian operated tower cranes to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using pedestrian operated tower cranes: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up and operate pedestrian operated tower cranes to lift, transfer and place a variety of loads to given working instructions.			
		8.4	Shut down and secure pedestrian operated tower cranes.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the crane for the lifting and transferring operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify characteristics, type, weight and position of loads for lifting and transferring</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>● recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>● secure and balance loads for lifting</li> <li>● lift, remove and transfer loads</li> <li>● position, place and set down loads</li> <li>● confirm load stability, security and release</li> <li>● attach and remove guide ropes and aids</li> <li>● be on the public highway</li> <li>● shut down and secure the crane</li> <li>● use hand tools and ancillary equipment</li> <li>● use, handle and store lifting accessories.</li> </ul>			
	<p>8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and lifting and transferring loads.</p>			
	<p>8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to lift and transfer loads.</p>			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 5: Preparing and operating overhead cranes to lift and transfer loads in the workplace

**Unit reference number:** T/506/4605

**Level:** 2

**Credit value:** 18

**Guided learning hours:** 60

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## Unit summary

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

## Unit 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 overhead cranes to lift and transfer loads to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of overhead cranes to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of overhead cranes to lift and transfer loads.</li> </ul>			
2	Organise with others the sequence and operation in which lifting operations using overhead cranes 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	Describe how to organise resources prior to and during lifting operations with overhead cranes.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads using overhead cranes.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out lifting operations using overhead cranes.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during lifting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out lifting operations using overhead cranes in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>safe use and storage of lifting accessories</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to overhead crane use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using overhead cranes.	5.1	Request and select resources associated with overhead cranes in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and method of work.		
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out lifting operations with overhead cranes.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift, transfer and place loads using overhead cranes to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using overhead cranes: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up and operate overhead cranes to lift, transfer and place a variety of loads to given working instructions.			
		8.4	Shut down and secure overhead cranes.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the crane for the lifting and transferring operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify characteristics, type, weight and position of loads for lifting and transferring</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• secure and balance loads for lifting</li> <li>• lift, remove and transfer loads</li> <li>• position, place and set down loads</li> <li>• confirm load stability, security and release</li> <li>• attach and remove guide ropes and aids</li> <li>• be on the public highway</li> <li>• shut down and secure the crane</li> <li>• use hand tools and ancillary equipment</li> <li>• use, handle and store lifting accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and lifting and transferring loads.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to lift and transfer loads.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 6: Preparing and operating excavator cranes to lift and transfer loads in the workplace

**Unit reference number:** A/506/4606

**Level:** 2

**Credit value:** 30

**Guided learning hours:** 100

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## Unit summary

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

## Unit 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 excavator cranes to lift and transfer loads to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of excavator cranes to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of excavator cranes to lift and transfer loads.</li> </ul>			
2	Organise with others the sequence and operation in which lifting operations using excavator cranes 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	Describe how to organise resources prior to and during lifting operations with excavator cranes.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads using excavator cranes.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out lifting operations using excavator cranes.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during lifting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out lifting operations using excavator cranes in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>safe use and storage of lifting accessories</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to excavator crane use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using excavator cranes.	5.1	Request and select resources associated with excavator cranes in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and method of work.		
		5.6	Describe how to identify weight, pressure, quantity, length and area associated with the method/procedures to carry out lifting operations with excavator cranes.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift, transfer and place loads using excavator cranes to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using excavator cranes: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up and operate excavator cranes to lift, transfer and place a variety of loads and/or materials to given working instructions.			
		8.4	Shut down and secure excavator cranes.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the crane for the lifting and transferring operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify characteristics, type, weight and position of loads for lifting and transferring</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• secure and balance loads for lifting</li> <li>• lift, remove and transfer loads</li> <li>• position, place and set down loads</li> <li>• confirm load stability, security and release</li> <li>• attach and remove guide ropes and aids</li> <li>• be on the public highway</li> <li>• shut down and secure the crane</li> <li>• use hand tools and ancillary equipment</li> <li>• use, handle and store lifting accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and lifting and transferring loads.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to lift and transfer loads.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 7: **Preparing and operating hoists to lift and transfer loads in the workplace**

**Unit reference number:** L/506/3928

**Level:** 2

**Credit value:** 12

**Guided learning hours:** 40

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## **Unit summary**

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

## **Unit 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 hoists to lift and transfer loads 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:

- hoists – rack and pinion goods
- hoists – passenger/goods combined
- hoists – rope operated goods
- hoists – transport platform.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of hoists to lift and transfer loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>• drawings, specifications, schedules, method statements, risk</li> <li>• assessments, manufacturers' information and current regulations</li> <li>• governing the operation of hoists to lift and transfer loads.</li> </ul>			
		1.5	Describe how to organise resources prior to and during hoist operations			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Organise with others the sequence and operation in which lifting and transferring operations using hoist 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	Describe how to organise resources prior to and during hoist operations			
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads using hoists.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Maintain safe and healthy working practices when preparing for and carrying out lifting and transferring operations using hoists.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during hoist operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out hoist operations in relation to two or more of the following: <ul style="list-style-type: none"> <li>• safe use and storage of plant or machinery</li> <li>• safe use and storage of tools and equipment</li> <li>• safe use and storage of lifting accessories</li> <li>• specific risks to health.</li> </ul>			
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to hoist use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Request and select the required quantity and quality of resources to prepare for and carry out lifting and transferring operations using hoists.	5.1	Request and select resources associated with hoists in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and method of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out lifting and transferring operations with hoists.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift and transfer loads using hoists to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting and transferring loads using hoists: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up and operate hoists to lift and transfer a variety of loads and personnel (where applicable), at various levels or heights, to given working instructions.			
		8.4	Shut down and secure hoists.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the hoist for the lifting operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> </ul>			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## **Unit 8: Preparing and operating lorry loaders or knuckle booms to lift and transfer loads in the workplace**

**Unit reference number:** R/506/4613

**Level:** 2

**Credit value:** 30

**Guided learning hours:** 100

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### **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating lorry loaders/knuckle boom cranes to lift and transfer loads in the workplace within the relevant sector of industry.

### **Unit 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 lorry loaders/knuckle boom cranes to lift and transfer loads to be effective and reliable when confirming a learner's competence.

- Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of lorry loaders/knuckle booms to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of lorry loaders/knuckle boom to lift and transfer loads.</li> </ul>			
2	Organise with others the sequence and operation in which lifting operations using lorry loaders/knuckle booms 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	Describe how to organise resources prior to and during lifting operations with lorry loaders/knuckle boom.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads using lorry loaders/knuckle booms.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out lifting operations using lorry loaders/knuckle booms.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during lifting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out lifting operations using lorry loaders/knuckle booms in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>safe use and storage of lifting accessories</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to lorry loader/knuckle boom use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using lorry loaders/knuckle booms.	5.1	Request and select resources associated with lorry loaders/knuckle booms in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and method of work.		
		5.6	Describe how to identify weight, bearing, pressure, quantity, length and area associated with the method/procedures to carry out lifting operations with lorry loaders/knuckle booms.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift, transfer and place loads using lorry loaders/knuckle booms to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using lorry loaders/knuckle booms: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up and operate lorry loaders/knuckle booms to lift, transfer and place a variety of loads to given working instructions.			
		8.4	Shut down and secure lorry loaders/knuckle booms.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the lorry loader/knuckle boom for the lifting and transferring operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify characteristics, type, weight and position of loads for lifting and transferring</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• secure and balance loads for lifting</li> <li>• lift, remove and transfer loads</li> <li>• position, place and set down loads</li> <li>• confirm load stability, security and release</li> <li>• attach and remove guide ropes and aids</li> <li>• be on the public highway</li> <li>• shut down and secure the lorry loader/knuckle boom</li> <li>• use hand tools and ancillary equipment</li> <li>• use, handle and store lifting accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and lifting and transferring loads.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to lift and transfer loads.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 9: Preparing and operating skip handlers to lift and transfer loads in the workplace

**Unit reference number:** Y/506/4614

**Level:** 2

**Credit value:** 18

**Guided learning hours:** 60

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## 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.

## Unit 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.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of skip handlers to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of skip handlers to lift and transfer loads.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Organise with others the sequence and operation in which lifting operations using skip handlers 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	Describe how to organise resources prior to and during lifting operations with skip handlers.			
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads using skip handlers.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Maintain safe and healthy working practices when preparing for and carrying out lifting operations using skip handlers.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during lifting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out lifting operations using skip handlers in relation to two or more of the following: <ul style="list-style-type: none"> <li>• safe use and storage of plant or machinery</li> <li>• safe use and storage of tools and equipment</li> <li>• safe use and storage of lifting accessories</li> <li>• specific risks to health.</li> </ul>			
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to skip handler use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.		
5	Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using skip handlers.	5.1	Request and select resources associated with skip handlers in relation to consumables, materials, tools, ancillary equipment and/or accessories.		
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>		
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.		
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and method of work.		
		5.6	Describe how to identify weight, pressure, quantity, length and area associated with the method/procedures to carry out lifting operations with skip handlers.		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift, transfer and place loads using skip handlers to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using skip handlers: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up and operate skip handlers to lift, transfer and place a variety of loads to given working instructions.			
		8.4	Shut down and secure skip handlers.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the skip handler for the lifting and transferring operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify characteristics, type, weight and position of loads for lifting and transferring</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• secure and balance loads for lifting</li> <li>• lift, remove and transfer loads</li> <li>• position, place and set down loads</li> <li>• confirm load stability, security and release</li> <li>• attach and remove guide ropes and aids</li> <li>• be on the public highway</li> <li>• shut down and secure the skip handler.</li> <li>• use hand tools and ancillary equipment</li> <li>• use, handle and store lifting accessories.</li> </ul>			
	<p>8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and lifting and transferring loads.</p>			
	<p>8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to lift and transfer loads.</p>			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_  
(if sampled)

Date: \_\_\_\_\_

# **Unit 10: Preparing and operating container handlers to lift and transfer loads in the workplace**

**Unit reference number: D/506/4615**

**Level: 2**

**Credit value: 18**

**Guided learning hours: 60**

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## **Unit summary**

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

## **Unit 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 container handlers to lift and transfer loads to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of container handlers to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of container handlers to lift and transfer loads.</li> </ul>			
2	Organise with others the sequence and operation in which lifting operations using container handlers 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	Describe how to organise resources prior to and during lifting operations with container handlers.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads using container handlers.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out lifting operations using container handlers.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during lifting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out lifting operations using container handlers in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>safe use and storage of lifting accessories</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to container handler use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using container handlers.	5.1	Request and select resources associated with container handlers in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and method of work.		
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out lifting operations with container handlers.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date	
8	Comply with the given contract information to lift, transfer and place loads using container handlers to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using container handlers: <ul style="list-style-type: none"> <li>• checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up and operate container handlers to lift, transfer and place a variety of loads to given working instructions.			
		8.4	Shut down and secure container handlers.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• identify the characteristics of the container handler for the lifting and transferring operation</li> <li>• identify valid certification for maintenance, inspection and thorough examination</li> <li>• lift and transfer people</li> <li>• carry out function checks for lifting and transferring loads</li> <li>• prepare, set up and reconfigure for various loads and locations</li> <li>• carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>• identify characteristics, type, weight and position of loads for lifting and transferring</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• secure and balance loads for lifting</li> <li>• lift, remove and transfer loads</li> <li>• position, place and set down loads</li> <li>• confirm load stability, security and release</li> <li>• attach and remove guide ropes and aids</li> <li>• be on the public highway</li> <li>• shut down and secure the container handler</li> <li>• use hand tools and ancillary equipment</li> <li>• use, handle and store lifting accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and lifting and transferring loads.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories 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 self-propelled modular transporters - SPMT - to lift and transfer loads in the workplace**

**Unit reference number:** H/506/4616

**Level:** 2

**Credit value:** 30

**Guided learning hours:** 100

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating self-propelled modular transporters (SPMT) to lift and transfer loads in the workplace within the relevant sector of industry.

## **Unit 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 self-propelled modular transporters (SPMT) to lift and transfer loads to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of SPMTs to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of SPMTs to lift and transfer loads.</li> </ul>			
2	Organise with others the sequence and operation in which lifting operations using SPMTs 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	Describe how to organise resources prior to and during lifting operations with SPMTs.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads using SPMTs.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out lifting operations using SPMTs.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during lifting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out lifting operations using SPMTs in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>safe use and storage of lifting accessories</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to SPMT use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using SPMTs.	5.1	Request and select resources associated with SPMTs in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and method of work.		
		5.6	Describe how to identify weight, bearing, pressure, quantity, length and area associated with the method/procedures to carry out lifting operations with SPMTs.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift, transfer and place loads using SPMTs to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using SPMTs: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up and operate SPMTs to lift, transfer and place a variety of loads to given working instructions.			
		8.4	Shut down and secure SPMTs			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the SPMT for the lifting and transferring operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify characteristics, type, weight and position of loads for lifting and transferring</li> <li>recognise and determine when specific skills and knowledge are required and report accordingly</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• secure and balance loads for lifting</li> <li>• lift, remove and transfer loads</li> <li>• position, place and set down loads</li> <li>• confirm load stability, security and release</li> <li>• attach and remove guide ropes and aids</li> <li>• be on the public highway</li> <li>• shut down and secure the SPMT</li> <li>• use hand tools and ancillary equipment</li> <li>• use, handle and store lifting accessories.</li> </ul>			
		8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and lifting and transferring loads.			
		8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories 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 ergonomic manipulating machines to lift and transfer loads in the workplace**

**Unit reference number: K/506/4617**

**Level: 2**

**Credit value: 11**

**Guided learning hours: 37**

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## **Unit summary**

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

## **Unit assessment requirements/evidence requirements**

This unit must be assessed in a work environment, 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.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of ergonomic manipulating machines to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of ergonomic manipulating machines to lift and transfer loads.</li> </ul>			
2	Organise with others the sequence and operation in which lifting operations using ergonomic manipulating machines 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	Describe how to organise resources prior to and during lifting operations with ergonomic manipulating machines.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads using ergonomic manipulating machines.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out lifting operations using ergonomic manipulating machines.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements during lifting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out lifting operations using ergonomic manipulating machines in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>safe use and storage of lifting accessories</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to ergonomic manipulating machine use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using ergonomic manipulating machines.	5.1	Request and select resources associated with ergonomic manipulating machines in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out lifting operations with ergonomic manipulating machines.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift, transfer and place loads using ergonomic manipulating machines to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using ergonomic manipulating machines: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up and operate ergonomic manipulating machines to lift, transfer and place a variety of loads to given working instructions.			
		8.4	Shut down and secure ergonomic manipulating machines.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the ergonomic manipulating machine for the lifting and transferring operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify characteristics, type, weight and position of loads for lifting and transferring</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>● recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>● secure and balance loads for lifting</li> <li>● lift, remove and transfer loads</li> <li>● position, place and set down loads</li> <li>● confirm load stability, security and release</li> <li>● attach and remove guide ropes and aids</li> <li>● be on the public highway</li> <li>● shut down and secure the ergonomic manipulating machine</li> <li>● use hand tools and ancillary equipment</li> <li>● use, handle and store lifting accessories.</li> </ul>			
	<p>8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and lifting and transferring loads.</p>			
	<p>8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to lift and transfer loads.</p>			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 13: Preparing and operating rough terrain masted forklifts to lift and transfer loads in the workplace**

**Unit reference number: F/506/4607**

**Level: 2**

**Credit value: 18**

**Guided learning hours: 60**

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## **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.

## **Unit 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.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of rough terrain masted forklifts to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of rough terrain masted forklifts to lift and transfer loads.</li> </ul>			
2	Organise with others the sequence and operation in which rough terrain masted forklift operations 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	Describe how to organise resources prior to and during forklift operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads with rough terrain masted forklifts.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out forklift operations with rough terrain masted forklifts.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during forklift operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out forklift operations using rough terrain masted forklifts in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>safe use and storage of lifting accessories</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to rough terrain masted forklift use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out forklift operations using rough terrain masted forklifts.	5.1	Request and select resources associated with rough terrain masted forklifts in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and method of work.		
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out forklift operations with rough terrain masted forklifts.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift, transfer and place loads using rough terrain masted forklifts to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using rough terrain masted forklifts: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare and operate rough terrain masted forklifts to lift, transfer and place a variety of loads to given working instructions.			
		8.4	Shut down and secure rough terrain masted forklifts.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the machine for the forklift operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify characteristics, type, weight and position of loads for lifting and transferring</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• secure and balance loads for lifting</li> <li>• lift, remove and transfer loads</li> <li>• position, place and set down loads</li> <li>• confirm load stability, security and release</li> <li>• attach and remove guide ropes and aids</li> <li>• be on the public highway</li> <li>• shut down and secure the rough terrain masted forklift</li> <li>• use hand tools and ancillary equipment</li> <li>• use, handle and store lifting accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and lifting and transferring loads.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to lift and transfer loads.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 14:                    Preparing and operating industrial forklift trucks to lift and transfer loads in the workplace**

**Unit reference number: J/506/4608**

**Level: 2**

**Credit value: 30**

**Guided learning hours: 100**

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## **Unit summary**

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

## **Unit 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 industrial counterbalanced forklifts to lift and transfer loads to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of industrial forklift trucks to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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 <ul style="list-style-type: none"> <li>• interpreted in relation to:</li> <li>• drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of industrial forklift trucks to lift and transfer loads.</li> </ul>			
2	Organise with others the sequence and operation in which industrial forklift truck operations 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	Describe how to organise resources prior to and during forklift operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads with industrial forklift trucks.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out forklift operations with industrial forklift trucks.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during industrial forklift truck operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out forklift operations using industrial forklift trucks in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>safe use and storage of lifting accessories</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to industrial forklift truck use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out forklift operations with industrial forklift trucks.	5.1	Request and select resources associated with industrial forklift trucks in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and method of work.		
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to lift and transfer loads with industrial forklift trucks.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift, transfer and place loads using industrial forklift trucks to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads with industrial forklift trucks: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare and operate industrial forklift trucks to lift, transfer and place a variety of loads to given working instructions.			
		8.4	Shut down and secure industrial forklift trucks.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the machine for the forklift operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify characteristics, type, weight and position of loads for lifting and transferring</li> </ul>			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 15: Preparing and operating telescopic handlers to lift and transfer loads in the workplace**

**Unit reference number: F/506/4610**

**Level: 2**

**Credit value: 25**

**Guided learning hours: 83**

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## **Unit summary**

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

## **Unit 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 telescopic handlers to lift and transfer loads 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:

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

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of telescopic handlers to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of telescopic handlers to lift and transfer loads.</li> </ul>			
2	Organise with others the sequence and operation in which lifting operations using telescopic handlers 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	Describe how to organise resources prior to and during telescopic handler operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads using telescopic handlers.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out lifting operations using telescopic handlers.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during lifting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out telescopic handler operations in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>safe use and storage of lifting accessories</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to telescopic handler use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out telescopic handler operations.	5.1	Request and select resources associated with telescopic handlers in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and method of work.		
		5.6	Describe how to identify weight, pressure, quantity, length and area associated with the method/procedures to lift and transfer loads using telescopic handlers.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift, transfer and place loads using telescopic handlers to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using telescopic handlers: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up and operate telescopic handlers to lift, transfer and place a variety of loads to given working instructions.			
		8.4	Shut down and secure telescopic handlers.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the telescopic handler for the lifting and transferring operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify characteristics, type, weight and position of loads for lifting and transferring</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• secure and balance loads for lifting</li> <li>• lift, remove and transfer loads</li> <li>• position, place and set down loads</li> <li>• confirm load stability, security and release</li> <li>• attach and remove guide ropes and aids</li> <li>• be on the public highway</li> <li>• shut down and secure the telescopic handler</li> <li>• use hand tools and ancillary equipment</li> <li>• use, handle and store lifting accessories.</li> </ul>			
	<p>8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and lifting and transferring loads.</p>			
	<p>8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to lift and transfer loads.</p>			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 16:**                              **Preparing and operating reach trucks to lift and transfer loads in the workplace**

**Unit reference number:** J/506/4611

**Level:** 2

**Credit value:** 16

**Guided learning hours:** 53

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## **Unit summary**

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

## **Unit 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 reach trucks to lift and transfer loads to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of reach trucks to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of reach trucks to lift and transfer loads.</li> </ul>			
2	Organise with others the sequence and operation in which reach truck operations 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	Describe how to organise resources prior to and during reach truck operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads with reach trucks.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out forklift operations with reach trucks.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during reach truck operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out reach truck operations in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>safe use and storage of lifting accessories</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to reach truck use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out forklift operations with reach trucks.	5.1	Request and select resources associated with reach trucks in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and method of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry, lift and transfer loads using reach trucks.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift, transfer and place loads using reach trucks to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using reach trucks: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up and operate reach trucks to lift, transfer and place a variety of loads to given working instructions.			
		8.4	Shut down and secure reach trucks.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the reach truck for the forklift operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify characteristics, type, weight and position of loads for lifting and transferring</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• secure and balance loads for lifting</li> <li>• lift, remove and transfer loads</li> <li>• position, place and set down loads</li> <li>• confirm load stability, security and release</li> <li>• attach and remove guide ropes and aids</li> <li>• be on the public highway</li> <li>• shut down and secure the reach truck</li> <li>• use hand tools and ancillary equipment</li> <li>• use, handle and store lifting accessories.</li> </ul>			
	<p>8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and lifting and transferring loads.</p>			
	<p>8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to lift and transfer loads.</p>			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 17:                                    Preparing and operating sideloader forklifts to lift and transfer loads in the workplace**

**Unit reference number: L/506/7851**

**Level: 2**

**Credit value: 16**

**Guided learning hours: 53**

## **Unit summary**

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

## **Unit 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 sideloader forklifts to lift and transfer loads to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of sideloader forklifts to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of sideloader forklifts to lift and transfer loads.</li> </ul>			
2	Organise with others the sequence and operation in which sideloader forklift operations 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	Describe how to organise resources prior to and during forklift operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads with sideloader forklifts.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out forklift operations with sideloader types.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during forklift operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out forklift operations with sideloader types in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>safe use and storage of lifting accessories</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to sideloader forklift use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out forklift operations with sideloader types.	5.1	Request and select resources associated with sideloader forklifts in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and method of work.		
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out forklift operations with sideloader types.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift, transfer and place loads using sideloader forklifts to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using sideloader forklifts: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare and operate sideloader forklifts to lift, transfer and place a variety of loads to given working instructions.			
		8.4	Shut down and secure sideloader forklifts.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the machine for the forklift operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify characteristics, type, weight and position of loads for lifting and transferring</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• secure and balance loads for lifting</li> <li>• lift, remove and transfer loads</li> <li>• position, place and set down loads</li> <li>• confirm load stability, security and release</li> <li>• attach and remove guide ropes and aids</li> <li>• be on the public highway</li> <li>• shut down and secure the sideloader forklift</li> <li>• use hand tools and ancillary equipment</li> <li>• use, handle and store lifting accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and lifting and transferring loads.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to lift and transfer loads.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 18: Preparing and operating wheeled loading shovels to extract loose materials in the workplace**

**Unit reference number: M/506/4621**

**Level: 2**

**Credit value: 26**

**Guided learning hours: 87**

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## **Unit summary**

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

## **Unit 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 wheeled loading shovels to extract materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of wheeled loading shovels for extracting operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of wheeled loading shovels for extraction work.</li> </ul>			
2	Organise with others the sequence and operation in which extracting operations using wheeled loading shovels 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	Describe how to organise resources prior to and during extracting operations using wheeled loading shovels.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out extracting operations using wheeled loading shovels.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out extracting operations using wheeled loading shovels.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during extracting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out extracting operations using wheeled loading shovels in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to wheeled loading shovel use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out extracting operations using wheeled loading shovels.	5.1	Request and select resources associated with wheeled loading shovels in relation to consumables, materials, attachments, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and extraction aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to identify weight, pressure, quantity, length and area associated with the method/procedures to carry out extracting operations using wheeled loading shovels.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and extracting materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and extracting materials.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to extract materials using wheeled loading shovels to the required specification.	8.1	Demonstrate the following work skills when preparing for and extracting loose materials using wheeled loading shovels: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, extracting, forming, removing and loading.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, position, set up and operate wheeled loading shovels to given working instructions to: <ul style="list-style-type: none"> <li>extract loose materials</li> <li>load and/or stockpile loose materials.</li> </ul>			
		8.4	Shut down and secure wheeled loading shovels.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the wheeled loading shovel used for the extraction operation</li> <li>carry out function checks for the extraction operation</li> <li>prepare, set up and adjust for operational requirements</li> <li>identify the area to be extracted</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify geological, environmental and material changes and report</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• extract, remove and load materials safely and securely</li> <li>• form stockpiles</li> <li>• be on the public highway</li> <li>• shut down and secure the wheeled loading shovel</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
		8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out extracting operations.			
		8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to extract materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 19:**                      **Preparing and operating skid steer loaders to extract loose materials in the workplace**

**Unit reference number:** F/506/4624

**Level:** 2

**Credit value:** 20

**Guided learning hours:** 67

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## **Unit summary**

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

## **Unit 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 skid steer loaders to extract materials to be effective and reliable when confirming a learner’s competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of skid steer loaders for extracting operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of skid steer loaders for extraction work.</li> </ul>			
2	Organise with others the sequence and operation in which extracting operations using skid steer loaders 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	Describe how to organise resources prior to and during extracting operations using skid steer loaders.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out extracting operations using skid steer loaders.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out extracting operations using skid steer loaders.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during extracting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out extracting operations using skid steer loaders in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to skid steer loader use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out extracting operations using skid steer loaders.	5.1	Request and select resources associated with skid steer loaders in relation to consumables, materials, attachments, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and extraction aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out extracting operations using skid steer loaders.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and extracting materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and extracting materials.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to extract materials using skid steer loaders to the required specification.	8.1	Demonstrate the following work skills when preparing for and extracting loose materials using skid steer loaders: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, extracting, forming, removing and loading.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, position, set up and operate skid steer loaders to given working instructions <ul style="list-style-type: none"> <li>extract loose materials</li> <li>load and/or stockpile loose materials.</li> </ul>			
		8.4	Shut down and secure skid steer loaders.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the skid steer loader used for the extraction operation</li> <li>carry out function checks for the extraction operation</li> <li>prepare, set up and adjust for operational requirements</li> <li>identify the area to be extracted</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify geological, environmental and material changes and report</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• extract, remove and load materials safely and securely</li> <li>• form stockpiles</li> <li>• be on the public highway</li> <li>• shut down and secure the skid steer loader</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out extracting operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to extract materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 20: Preparing and operating loader compressors to extract loose materials in the workplace**

**Unit reference number: Y/506/4628**

**Level: 2**

**Credit value: 16**

**Guided learning hours: 53**

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## **Unit summary**

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

## **Unit 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 loader compressors to extract 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:

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

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of loader compressors for extracting operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of loader compressors for extraction work.</li> </ul>			
2	Organise with others the sequence and operation in which extracting operations using loader compressors 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	Describe how to organise resources prior to and during extracting operations using loader compressors.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out extracting operations using loader compressors.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out extracting operations using loader compressors.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during extracting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out extracting operations using loader compressors in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to loader compressor use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out extracting operations using loader compressors.	5.1	Request and select resources associated with loader compressors in relation to consumables, materials, attachments, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and extraction aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out extracting operations using loader compressors.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and extracting materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and extracting materials.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to extract materials using loader compressors to the required specification.	8.1	Demonstrate the following work skills when preparing for and extracting loose materials using loader compressors: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, extracting, forming, removing and loading.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, position, set up and operate loader compressors to given working instructions <ul style="list-style-type: none"> <li>extract loose materials</li> <li>load and/or stockpile loose materials.</li> </ul>			
		8.4	Shut down and secure loader compressors.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the loader compressors used for the extraction operation</li> <li>carry out function checks for the extraction operation</li> <li>prepare, set up and adjust for operational requirements</li> <li>identify the area to be extracted</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify geological, environmental and material changes and report</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• extract, remove and load materials and commodities safely and securely</li> <li>• form stockpiles</li> <li>• be on the public highway</li> <li>• shut down and secure loader compressors</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
		8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out extracting operations.			
		8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to extract materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 21: Preparing and operating forward tipping dumpers to receive, transport and discharge materials in the workplace**

**Unit reference number: J/506/4642**

**Level: 2**

**Credit value: 16**

**Guided learning hours: 53**

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## **Unit summary**

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

## **Unit 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 forward tipping dumpers 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:

- forward tipping dumper – wheeled
- forward tipping dumper – tracked.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of forward tipping dumpers to carry out transporting and discharging operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of forward tipping dumpers.</li> </ul>			
2	Organise with others the sequence and operation in which transporting and discharging operations using forward tipping dumpers 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	Describe how to organise resources prior to and during transporting and discharging operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out transporting and discharging operations using forward tipping dumpers.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out transporting and discharging operations using forward tipping dumpers.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during transporting and discharging operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out transporting and discharging operations using forward tipping dumpers in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to forward tipping dumper use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
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.	5.1	Request and select resources associated with forward tipping dumpers in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and load coverings</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to identify weight, quantity, pressure, length and area associated with the method/procedures to carry out transporting and discharging operations.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and transporting and discharging materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and transporting and discharging materials using forward tipping dumpers.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to receive, transport and discharge materials using forward tipping dumpers to the required specification.	8.1	Demonstrate the following work skills when preparing for and transporting and discharging materials using forward tipping dumpers: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, receiving, depositing, transporting, discharging and cleaning.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare to, position, set up and operate forward tipping dumpers to receive, transport and discharge loads to given working instructions.			
		8.4	Shut down and secure forward tipping dumpers.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the forward tipping dumpers used for transporting and discharging work</li> <li>carry out function checks to receive, transport and discharge loads</li> <li>identify characteristics, type and volume of loads to receive and transport</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>recognise and determine when specific skills and knowledge are required and report accordingly</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• identify the area for discharging</li> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• receive, transport and discharge materials safely and securely</li> <li>• be on the public highway</li> <li>• shut down and secure the forward tipping dumper</li> <li>• use hand tools, ancillary equipment and accessories</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out transporting and discharging operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used for transporting and discharging operations.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

(if sampled)

# **Unit 22: Preparing and operating rear tipping dump trucks to receive, transport and discharge materials in the workplace**

**Unit reference number: L/506/4643**

**Level: 2**

**Credit value: 30**

**Guided learning hours: 100**

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## **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.

## **Unit 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 Construction Skills 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 tonnes
- dump truck – rigid chassis – above 50 tonnes.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of rear tipping dump trucks to carry out transporting and discharging operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of rear tipping dump trucks.</li> </ul>			
2	Organise with others the sequence and operation in which transporting and discharging operations using rear tipping dump trucks 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	Describe how to organise resources prior to and during transporting and discharging operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out transporting and discharging operations using rear tipping dump trucks.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out transporting and discharging operations using rear tipping dump trucks.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during transporting and discharging operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out transporting and discharging operations using rear tipping dump trucks in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to rear tipping dump truck use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
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.	5.1	Request and select resources associated with rear tipping dump trucks in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and load coverings</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to identify weight, quantity, pressure, length and area associated with the method/procedures to carry out transporting and discharging operations.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and transporting and discharging materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and transporting and discharging materials using rear tipping dump trucks.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to receive, transport and discharge materials using rear tipping dump trucks to the required specification.	8.1	Demonstrate the following work skills when preparing for and transporting and discharging materials using rear tipping dump trucks: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, receiving, depositing, transporting, discharging and cleaning.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare to, position, set up and operate rear tipping dump trucks to receive, transport and discharge materials to given working instructions.			
		8.4	Shut down and secure rear tipping dump trucks.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the rear tipping dump trucks used for transporting and discharging work</li> <li>carry out function checks to receive and transport loads</li> <li>identify characteristics, type and volume of loads to receive and transport</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>recognise and determine when specific skills and knowledge are required and report accordingly</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• identify the area for discharging</li> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• receive, transport and discharge materials safely and securely</li> <li>• be on the public highway</li> <li>• shut down and secure the rear tipping dump truck</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out transporting and discharging operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used for transporting and discharging operations.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 23: Preparing and operating tractors with towed equipment for non-agricultural activities in the workplace**

**Unit reference number: R/506/4644**

**Level: 2**

**Credit value: 20**

**Guided learning hours: 67**

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating agricultural-based tractors for construction-related activities in the workplace within the relevant sector of industry.

## **Unit 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 agricultural-based tractors for construction-related activities to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of tractors with towed equipment to carry out non-agricultural activities.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of tractors with towed equipment.</li> </ul>			
2	Organise with others the sequence and operation in which non-agricultural activities using tractors with towed equipment 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	Describe how to organise resources prior to and during non-agricultural activities.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out non-agricultural activities using tractors with towed equipment.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out non-agricultural activities using tractors with towed equipment.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during non-agricultural activities.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out non-agricultural activities using tractors with towed equipment in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to tractors with towed equipment use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out non-agricultural activities using tractors with towed equipment.	5.1	Request and select resources associated with tractors with towed equipment in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and load coverings</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to identify weight, quantity, pressure, length and area associated with the method/procedures to carry out non-agricultural activities.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and carrying out non-agricultural activities.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and carrying out non-agricultural activities using tractors with towed equipment.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to carry out non-agricultural activities using tractors with towed equipment to the required specification.	8.1	Demonstrate the following work skills when preparing for and carrying out non-agricultural activities using tractors with towed equipment: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, receiving, transporting, depositing and cleaning.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare to, position, set up and operate tractors with towed equipment to undertake non-agricultural activities to given working instructions.			
		8.4	Shut down and secure tractors with towed equipment.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the tractors with towed equipment used for non-agricultural work</li> <li>carry out function checks to receive and transport loads</li> <li>identify characteristics, type and volume of loads</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>recognise and determine when specific skills and knowledge are required and report accordingly</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• identify the area or work</li> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• receive, secure and balance loads for movement safely and securely</li> <li>• transport and deposit loads</li> <li>• be on the public highway</li> <li>• shut down and secure the tractor</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
		8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out non-agricultural activities.			
		8.8 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used for non-agricultural activities.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 24: Preparing and operating trailer-mounted concrete pumps to receive, pump and discharge materials in the workplace**

**Unit reference number: M/506/5087**

**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.

## **Unit 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 Construction Skills 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.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of concrete pumps to carry out pumping and discharging operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of trailer-mounted concrete pumps.</li> </ul>			
2	Organise with others the sequence and operation in which pumping and discharging operations using concrete pumps 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	Describe how to organise resources prior to and during concrete pumping operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out pumping and discharging operations using concrete pumps.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out pumping operations using concrete pumps.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during concrete pumping operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out pumping operations using trailer-mounted concrete pumps in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to concrete pump use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out pumping operations using concrete pumps.	5.1	Request and select resources associated with concrete pumps in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments, pumping and discharging aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, pressure, length and area associated with the method/procedures to carry out concrete pumping operations.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and pumping materials using concrete pumps.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and pumping and discharging materials using concrete pumps.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to receive, pump and discharge materials using concrete pumps to the required specification.	8.1	Demonstrate the following work skills when preparing for and pumping and discharging materials using concrete pumps: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, receiving, depositing, pumping, discharging and cleaning.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare to, position, set up and operate trailer-mounted concrete pumps to receive, pump and discharge materials, at various locations, to given working instructions.			
		8.4	Shut down and secure concrete pumps.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the concrete pump used for pumping and discharging work</li> <li>carry out function checks to receive, pump and discharge materials</li> <li>identify characteristics, type and volume of loads to receive, pump and discharge</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• identify the area for pumping</li> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• receive, pump and discharge materials safely and securely</li> <li>• be on the public highway</li> <li>• shut down and secure the concrete pump</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
		8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out pumping and discharging operations.			
		8.8 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used pumping and discharging operations.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 25: Preparing and operating self-propelled bowzers to receive, transport and discharge materials in the workplace

**Unit reference number:** Y/506/4645

**Level:** 2

**Credit value:** 12

**Guided learning hours:** 40

## Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating self-propelled bowzers to transport and discharge fluid materials in the workplace within the relevant sector of industry.

## Unit 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 Construction Skills 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 self-propelled bowzers to transport and discharge fluid materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of self-propelled bowzers to carry out transporting and discharging operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of self-propelled bowzers.</li> </ul>			
2	Organise with others the sequence and operation in which transporting and discharging operations using self-propelled bowzers 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	Describe how to organise resources prior to and during transporting and discharging operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out transporting and discharging operations using self-propelled bowzers.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out transporting and discharging operations using self-propelled bowzers.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during transporting and discharging operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out transporting and discharging operations using self-propelled bowzers in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to self-propelled bowser use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out transporting and discharging operations using self-propelled bowzers.	5.1	Request and select resources associated with self-propelled bowzers in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and load coverings</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to identify weight, quantity, pressure, length and area associated with the method/procedures to carry out transporting and discharging operations.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and transporting and discharging materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and transporting and discharging materials using self-propelled bowzers.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to receive, transport and discharge materials using self-propelled bowzers to the required specification.	8.1	Demonstrate the following work skills when preparing for and transporting and discharging materials using self-propelled bowzers: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, receiving, depositing, receiving, transporting, discharging and cleaning.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare to, position, set up and operate self-propelled bowzers to receive, transport and discharge fluid materials, at various locations, to given working instructions.			
		8.4	Shut down and secure self-propelled bowzers.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the self-propelled bowzers used for transporting and discharging work</li> <li>carry out function checks to receive, transport and discharge loads</li> <li>identify characteristics, type and volume of loads</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>recognise and determine when specific skills and knowledge are required and report accordingly</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• identify the area for discharging</li> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• receive, transport and discharge materials safely and securely</li> <li>• be on the public highway</li> <li>• shut down and secure the self-propelled bowser</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out transporting and discharging operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used for transporting and discharging operations.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 26:    Preparing and operating static concrete placing booms to discharge and place materials in the workplace**

**Unit reference number:** D/506/4646

**Level:** 2

**Credit value:** 25

**Guided learning hours:** 83

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating static concrete placing booms to discharge and place materials in the workplace within the relevant sector of industry.

## **Unit 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.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of static concrete placing booms to carry out concrete placing operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of static concrete placing booms.</li> </ul>			
2	Organise with others the sequence and operation in which concrete placing operations using placing booms 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	Describe how to organise resources prior to and during concrete placing operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out concrete placing operations using placing booms.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out concrete placing operations using placing booms.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during concrete placing operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out concrete placing operations using static concrete placing booms in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to concrete placing boom use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out concrete placing operations using placing booms.	5.1	Request and select resources associated with placing booms in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and load coverings</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out concrete placing operations.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and placing materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and placing materials using placing booms.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to prepare, discharge and place materials using placing booms to the required specification.	8.1	Demonstrate the following work skills when preparing for discharging and placing materials using static concrete placing booms: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, receiving, discharging, depositing, placing and cleaning.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare to, position, set up, check the positioning of and operate static concrete placing booms to receive, discharge and place materials, at various locations, to given working instructions.			
		8.4	Shut down and secure static concrete placing booms.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the placing boom used for discharging work</li> <li>carry out function checks to receive, discharge and place loads</li> <li>identify characteristics, type and volume of loads to discharge and place</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>recognise and determine when specific skills and knowledge are required and report accordingly</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• identify the area for pouring</li> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• receive and place loads safely and securely</li> <li>• be on the public highway</li> <li>• shut down and secure the placing boom</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out concrete placing operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used for concrete placing operations.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

(if sampled)

# Unit 27: Preparing and operating volumetric trucks to receive and transport materials in the workplace

**Unit reference number: H/506/4647**

**Level: 2**

**Credit value: 30**

**Guided learning hours: 100**

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## Unit summary

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

## Unit 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.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of volumetric trucks to carry out receiving and transporting operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of volumetric trucks.</li> </ul>			
2	Organise with others the sequence and operation in which receiving and transporting operations using volumetric trucks 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	Describe how to organise resources prior to and during receiving and transporting operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out receiving and transporting operations using volumetric trucks.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out receiving and transporting operations using volumetric trucks.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during receiving and transporting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out receiving and transporting operations using volumetric trucks in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to volumetric truck use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out receiving and transporting operations using volumetric trucks.	5.1	Request and select resources associated with volumetric trucks in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and load coverings</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out receiving and transporting operations.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and receiving and transporting materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and receiving and transporting materials using volumetric trucks.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to receiving and transporting materials using volumetric trucks to the required specification.	8.1	Demonstrate the following work skills when preparing for and receiving and transporting materials using volumetric trucks: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, receiving, depositing, pumping, discharging and cleaning.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare to, position, set up and operate volumetric trucks to receive and transport materials, to various locations, to given working instructions.			
		8.4	Shut down and secure volumetric trucks.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the volumetric trucks used for receiving and transporting work</li> <li>carry out function checks to receive and transport loads</li> <li>identify characteristics, type and volume of loads to receive and transport</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>recognise and determine when specific skills and knowledge are required and report accordingly</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• identify the area for transportation</li> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• receive, secure and balance loads for transport safely and securely</li> <li>• transport and deposit loads</li> <li>• be on the public highway</li> <li>• shut down and secure the volumetric truck</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out receiving and transporting operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used for receiving and transporting operations.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 28: Preparing and operating scissor-type mobile elevating work platforms - MEWP - in the workplace

**Unit reference number:** K/506/4648

**Level:** 2

**Credit value:** 12

**Guided learning hours:** 40

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## Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating mast climber-type mobile elevating work platforms (MEWP) accessing operations in the workplace within the relevant sector of industry.

## Unit 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 mast climber-type mobile elevating work platforms (MEWP) to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and using scissor-type MEWPs to access areas to carry out the work.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of plant and machinery used as work platforms.</li> </ul>			
2	Organise with others the sequence and operation in which accessing operations using scissor-type MEWPs 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	Describe how to organise resources prior to and during accessing operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out accessing operations using scissor-type MEWPs.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out accessing operations using scissor-type MEWPs.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during accessing operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out accessing operations using scissor-type MEWPs in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to accessing operations, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries, other task-related activities and rescue plans.			
5	Request and select the required quantity and quality of resources to prepare for and carry out accessing operations using scissor-type MEWPs.	5.1	Request and select resources associated with scissor-type MEWPs in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and accessing aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly, how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to operate scissor-type mobile elevating work platforms used for accessing operations.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and accessing work areas.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and accessing work areas using scissor-type MEWPs.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to access areas to carry out work using scissor-type MEWPs to the required specification.	8.1	Demonstrate the following work skills when preparing for and accessing work areas using scissor-type MEWPs: <ul style="list-style-type: none"> <li>checking, setting up, adjusting, communicating, manoeuvring, positioning, accessing and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare for, position, set up and operate scissor-type MEWPs to access working areas, at various locations, to given working instructions.			
		8.4	Shut down and secure scissor-type MEWPs.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the scissor-type MEWP used for accessing work</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>carry out function checks for accessing operation</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, and ground conditions affecting the work and surrounding area</li> <li>identify and remain aware of the area of operation to include potential entrapment situations</li> <li>use fall prevention equipment</li> <li>check to avoid damage to structures and utilities service apparatus</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• position and secure MEWP for accessing operations</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• operate, manoeuvre, position, set down and secure</li> <li>• operate and travel on the public highway</li> <li>• shut down and secure the MEWP</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out accessing operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment used to access working areas.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 29: Preparing and operating boom-type mobile elevating work platforms - MEWP - in the workplace

**Unit reference number:** M/506/4649

**Level:** 2

**Credit value:** 14

**Guided learning hours:** 47

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## Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating boom-type mobile elevating work platforms (MEWP) accessing operations in the workplace within the relevant sector of industry.

## Unit 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 boom-type mobile elevating work platforms (MEWP) 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 elevating work platforms – boom self propelled
- mobile elevating work platforms – boom vehicle mounted.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and using boom-type MEWPs to access areas to carry out the work.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of plant and machinery used as work platforms.</li> </ul>			
2	Organise with others the sequence and operation in which accessing operations using boom-type MEWPs 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	Describe how to organise resources prior to and during accessing operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out accessing operations using boom-type MEWPs.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out accessing operations using boom-type MEWPs.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during accessing operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out accessing operations using boom-type MEWPs in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to accessing operations, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries, other task-related activities and rescue plans.			
5	Request and select the required quantity and quality of resources to prepare for and carry out accessing operations using boom-type MEWPs.	5.1	Request and select resources associated with boom-type MEWPs in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and accessing aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly, how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to operate boom-type mobile elevating work platforms used for accessing operations.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and accessing work areas.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and accessing work areas using boom-type MEWPs.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to access areas to carry out work using boom-type MEWPs to the required specification.	8.1	Demonstrate the following work skills when preparing for and accessing work areas using boom-type MEWPs: <ul style="list-style-type: none"> <li>checking, setting up, adjusting, communicating, manoeuvring, positioning, accessing and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare for, position, set up and operate boom-type MEWPs to access working areas, at various locations, to given working instructions.			
		8.4	Shut down and secure boom-type MEWPs.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the boom-type MEWP used for accessing work</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>carry out function checks for accessing operation</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, and ground conditions affecting the work and surrounding area</li> <li>identify and remain aware of the area of operation to include potential entrapment situations</li> <li>use fall prevention equipment</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• position and secure MEWP for accessing operations</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• operate, manoeuvre, position, set down and secure</li> <li>• operate and travel on the public highway</li> <li>• shut down and secure the MEWP</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out accessing operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment used to access working areas.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 30: Preparing and operating mast climber-type mobile elevating work platforms - MEWP - in the workplace**

**Unit reference number: H/506/4650**

**Level: 2**

**Credit value: 12**

**Guided learning hours: 40**

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating scissor-type mobile elevating work platforms (MEWP) accessing operations in the workplace within the relevant sector of industry.

## **Unit 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 scissor-type mobile elevating work platforms (MEWP) to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and using mast climber-type MEWPs to access areas to carry out the work.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of plant and machinery used as work platforms.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Organise with others the sequence and operation in which accessing operations using mast climber-type MEWPs 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	Describe how to organise resources prior to and during accessing operations.			
3	Know how to comply with relevant legislation and official guidance when carrying out accessing operations using mast climber-type MEWPs.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Maintain safe and healthy working practices when preparing for and carrying out accessing operations using mast climber-type MEWPs.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during accessing operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out accessing operations using mast climber-type MEWPs in relation to two or more of the following: <ul style="list-style-type: none"> <li>• safe use and storage of plant or machinery</li> <li>• safe use and storage of tools and equipment</li> <li>• specific risks to health.</li> </ul>			
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to accessing operations, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries, other task-related activities and rescue plans.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Request and select the required quantity and quality of resources to prepare for and carry out accessing operations using mast climber-type MEWPs.	5.1	Request and select resources associated with mast climber-type MEWPs in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and accessing aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly, how problems associated with the resources are reported.			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to operate mast climber-type mobile elevating work platforms used for accessing operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Minimise the risk of damage to the work and surrounding area when preparing to and accessing work areas.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and accessing work areas using mast climber-type MEWPs.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to access areas to carry out work using mast climber-type MEWPs to the required specification.	8.1	Demonstrate the following work skills when preparing for and accessing work areas using mast climber-type MEWPs: <ul style="list-style-type: none"> <li>checking, setting up, adjusting, communicating, manoeuvring, positioning, accessing and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare for, position, set up and operate mast climber-type MEWPs to access working areas, at various locations, to given working instructions.			
		8.4	Shut down and secure mast climber-type MEWPs.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the mast climber-type MEWP used for accessing work</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>carry out function checks for accessing operation</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, and ground conditions affecting the work and surrounding area</li> <li>identify and remain aware of the area of operation to include potential entrapment situations</li> <li>use fall prevention equipment</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• position and secure MEWP for accessing operations</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• operate, manoeuvre, position, set down and secure</li> <li>• operate and travel on the public highway</li> <li>• shut down and secure the MEWP</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out accessing operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment used to access working areas.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

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Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 31:                   Preparing and operating binder spreaders to lay and distribute materials in the workplace**

**Unit reference number: Y/506/4659**

**Level: 2**

**Credit value: 25**

**Guided learning hours: 83**

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating binder spreaders to lay and distribute materials in the workplace within the relevant sector of industry.

## **Unit 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.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of binder spreaders to carry out laying and distribution operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of binder spreaders for laying and distribution work.</li> </ul>			
2	Organise with others the sequence and operation in which laying and distribution operations using binder spreaders 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	Describe how to organise resources prior to and during laying and distribution operations using binder spreaders.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out laying and distribution operations using binder spreaders.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out laying and distribution operations using binder spreaders.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during laying and distribution operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out laying and distribution operations using binder spreaders in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to binder spreader use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out laying and distribution operations using binder spreaders.	5.1	Request and select resources associated with binder spreaders in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments, laying and distribution aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out laying and distribution operations using binder spreaders.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and laying and distributing materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and laying and distributing materials.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lay and distribute materials using binder spreaders to the required specification.	8.1	Demonstrate the following work skills when preparing for and laying and distributing materials using binder spreaders: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, laying, distributing and compacting.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare to, position, set up and operate binder spreaders to lay and distribute a variety of materials, in a variety of locations, to given working instructions.			
		8.4	Shut down and secure binder spreaders.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the binder spreader used for laying and distribution operations</li> <li>carry out function checks for the laying and distribution work</li> <li>identify the area for the laying and distribution work</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>confirm material characteristics</li> <li>lay and distribute materials in laying patterns</li> <li>identify geological, environmental and material changes and report</li> <li>check to avoid damage to structures and utilities service apparatus</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• complete laying and distribution work</li> <li>• be on the public highway</li> <li>• shut down and secure binder spreader</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
		8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out laying and distribution operations.			
		8.8 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used to lay and distribute materials.			

Learner name: \_\_\_\_\_

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Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*



## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of self-propelled spreaders to carry out laying and distribution operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of self-propelled spreaders for laying and distribution work.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Organise with others the sequence and operation in which laying and distribution operations using self-propelled spreaders 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	Describe how to organise resources prior to and during laying and distribution operations using self-propelled spreaders.			
3	Know how to comply with relevant legislation and official guidance when carrying out laying and distribution operations using self-propelled spreaders.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Maintain safe and healthy working practices when preparing for and carrying out laying and distribution operations using self-propelled spreaders.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during laying and distribution operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out laying and distribution operations using self-propelled spreaders in relation to two or more of the following: <ul style="list-style-type: none"> <li>• safe use and storage of plant or machinery</li> <li>• safe use and storage of tools and equipment</li> <li>• specific risks to health.</li> </ul>			
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to self-propelled spreader use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Request and select the required quantity and quality of resources to prepare for and carry out laying and distribution operations using self-propelled spreaders.	5.1	Request and select resources associated with self-propelled spreaders in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments, laying and distribution aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out laying and distribution operations using self-propelled spreaders.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Minimise the risk of damage to the work and surrounding area when preparing to, laying and distributing materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to, laying and distributing materials.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			
8	Comply with the given contract information to lay and distribute materials using self-propelled spreaders to the required specification.	8.1	Demonstrate the following work skills when preparing for, laying and distributing materials using self-propelled spreaders: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, laying, distributing and compacting.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare to, position, set up and operate self-propelled spreaders to lay and distribute a variety of materials, in a variety of locations, to given working instructions.			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
	8.4	Shut down and secure self-propelled spreaders.			
	8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>● identify the characteristics of the self-propelled spreaders used for laying and distribution operations</li> <li>● carry out function checks for the laying and distribution work</li> <li>● identify the area for the laying and distribution work</li> <li>● prepare, set up and adjust for operational requirements</li> <li>● carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>● confirm material characteristics</li> <li>● lay and distribute materials in laying patterns</li> <li>● identify geological, environmental and material changes and report</li> <li>● check to avoid damage to structures and utilities service apparatus</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• complete laying and distribution work</li> <li>• be on the public highway</li> <li>• shut down and secure self-propelled spreader</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out laying and distribution operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used to lay and distribute materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

(if sampled)

## **Unit 33: Preparing and operating towed scrapers to lay and distribute materials in the workplace**

**Unit reference number: L/506/4660**

**Level: 2**

**Credit value: 25**

**Guided learning hours: 83**

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### **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating chipping spreaders to lay and distribute materials in the workplace within the relevant sector of industry.

### **Unit 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 Construction Skills 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 chipping spreaders to lay and distribute materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of towed scrapers to carry out laying and distribution operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of towed scrapers for laying and distribution work.</li> </ul>			
2	Organise with others the sequence and operation in which laying and distribution operations using towed scrapers 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	Describe how to organise resources prior to and during laying and distribution operations using towed scrapers.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out laying and distribution operations using towed scrapers.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out laying and distribution operations using towed scrapers.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during laying and distribution operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out distribution operations using towed scrapers in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to towed scraper use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out laying and distribution operations using towed scrapers.	5.1	Request and select resources associated with towed scrapers in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and distribution aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out laying and distribution operations using towed scrapers.			
6	Minimise the risk of damage to the work and surrounding area when preparing to, laying and distributing materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to, laying and distributing materials.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lay and distribute materials using towed scrapers to the required specification.	8.1	Demonstrate the following work skills when preparing for, distributing materials using towed scrapers: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, distributing and compacting.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare to, position, set up and operate towed scrapers to lay and distribute a variety of materials, in a variety of locations, to given working instructions.			
		8.4	Shut down and secure towed scrapers.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the towed scraper used for laying and distribution operations</li> <li>carry out function checks for the laying and distribution work</li> <li>identify the area for the laying and distribution work</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>confirm material characteristics</li> <li>distribute materials in laying patterns</li> <li>identify geological, environmental and material changes and report</li> <li>check to avoid damage to structures and utilities service apparatus</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• complete laying and distribution work</li> <li>• be on the public highway</li> <li>• shut down and secure the towed scraper</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out laying and distribution operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used to lay and distribute materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

(if sampled)

# **Unit 34: Preparing and operating ride-on rollers to compact materials in the workplace**

**Unit reference number: R/506/4661**

**Level: 2**

**Credit value: 16**

**Guided learning hours: 53**

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating ride-on rollers to compact materials in the workplace within the relevant sector of industry.

## **Unit 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 ride-on rollers to compact materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of ride-on rollers to carry out compacting operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of ride-on rollers for compaction work.</li> </ul>			
2	Organise with others the sequence and operation in which compacting operations using ride-on rollers 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	Describe how to organise resources prior to and during compacting operations using ride-on rollers.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out compacting operations using ride-on rollers.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out compacting operations using ride-on rollers.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during compacting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out compacting operations using ride-on rollers in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to ride-on roller use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out compacting operations using ride-on rollers.	5.1	Request and select resources associated with ride-on rollers in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and compaction operational aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to identify weight, pressure, quantity, length and area associated with the method/procedures to carry out compaction work using ride-on rollers.		
6	Minimise the risk of damage to the work and surrounding area when preparing for and compacting materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and compacting materials.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to compact materials using ride-on rollers to the required specification.	8.1	Demonstrate the following work skills when preparing for and compacting materials using ride-on rollers: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning and compacting.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare for, position, set up and operate ride-on rollers to compact a variety of materials, in various locations, to given working instructions.			
		8.4	Shut down and secure ride-on rollers.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the ride-on roller used for compaction operations</li> <li>carry out function checks for compaction operations</li> <li>identify the area for the compaction work</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify geological, environmental and material changes and report</li> <li>check to avoid damage to structures and utilities service apparatus</li> <li>recognise different compaction methods</li> <li>recognise and work compaction patterns</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• compact materials safely and securely</li> <li>• complete compaction work</li> <li>• be on the public highway</li> <li>• shut down and secure the ride-on roller</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
		8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out compacting operations.			
		8.8 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used to compact materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 35:                      Preparing and operating soil compactors to compact materials in the workplace**

**Unit reference number: Y/506/4662**

**Level: 2**

**Credit value: 16**

**Guided learning hours: 53**

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating soil compactors to compact materials in the workplace within the relevant sector of industry.

## **Unit 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 soil compactors to compact materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of soil compactors to carry out compacting operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of soil compactors for compaction work.</li> </ul>			
2	Organise with others the sequence and operation in which compacting operations using soil compactors 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	Describe how to organise resources prior to and during compacting operations using soil compactors.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out compacting operations using soil compactors.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing to and carrying out compacting operations using soil compactors.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during compacting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out compacting operations using soil compactors in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to soil compactor use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare to and carry out compacting operations using soil compactors.	5.1	Request and select resources associated with soil compactors in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and compaction operational aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to identify weight, bearing, pressure, quantity, length and area associated with the method/procedures to carry out compaction using soil compactors.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and compacting materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and compacting materials.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to compact materials using soil compactors to the required specification.	8.1	Demonstrate the following work skills when preparing for and compacting materials using soil compactors: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning and compacting.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare for, position, set up and operate soil compactors to compact a variety of materials, in various locations, to given working instructions.			
		8.4	Shut down and secure soil compactors.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the soil compactors used for compaction operations</li> <li>carry out function checks for compaction operations</li> <li>identify the area for the compaction work</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify geological, environmental and material changes and report</li> <li>check to avoid damage to structures and utilities service apparatus</li> <li>recognise different compaction methods</li> <li>recognise and work compaction patterns</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• compact materials safely and securely</li> <li>• complete compaction work</li> <li>• be on the public highway</li> <li>• shut down and secure soil compactors</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out compacting operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used to compact materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 36: Preparing and operating landfill compactors to compact materials in the workplace**

**Unit reference number: D/506/4663**

**Level: 2**

**Credit value: 25**

**Guided learning hours: 83**

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating landfill compactors to spread and compact materials in the workplace within the relevant sector of industry.

## **Unit 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 landfill compactors to spread and compact materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of landfill compactors to carry out compacting operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of landfill compactors for compaction work.</li> </ul>			
2	Organise with others the sequence and operation in which compacting operations using landfill compactors 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	Describe how to organise resources prior to and during compacting operations using landfill compactors.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out compacting operations using landfill compactors.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out compacting operations using landfill compactors.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during compacting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out compacting operations using landfill compactors in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to landfill compactor use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out compacting operations using landfill compactors.	5.1	Request and select resources associated with landfill compactors in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and compaction operational aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to identify weight, bearing, pressure, quantity, length and area associated with the method/procedures to carry out compaction using landfill compactors.		
6	Minimise the risk of damage to the work and surrounding area when preparing for and compacting materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and compacting materials.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to compact materials using landfill compactors to the required specification.	8.1	Demonstrate the following work skills when preparing for and compacting materials using landfill compactors: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning and compacting.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare for, position, set up and operate landfill compactors to compact a variety of materials, in various locations, to given working instructions.			
		8.4	Shut down and secure landfill compactors.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the landfill compactors used for compaction operations</li> <li>carry out function checks for compaction operations</li> <li>identify the area for the compaction work</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify geological, environmental and material changes and report</li> <li>check to avoid damage to structures and utilities service apparatus</li> <li>recognise different compaction methods</li> <li>recognise and work compaction patterns</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• compact materials safely and securely</li> <li>• complete compaction work</li> <li>• be on the public highway</li> <li>• shut down and secure landfill compactors</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out compacting operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used to compact materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 37: Preparing and operating crushers to process materials in the workplace

**Unit reference number:** H/506/4664

**Level:** 2

**Credit value:** 16

**Guided learning hours:** 53

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## Unit summary

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

## Unit 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 crushers to process materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of crushers to process materials.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of crushers for carrying out processing work.</li> </ul>			
2	Organise with others the sequence and operation in which processing operations using crushers 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	Describe how to organise resources prior to and during processing operations using crushers.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out processing operations using crushers.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out processing operations using crushers.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during processing operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out processing operations using crushers in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to crusher use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out processing operations using crushers.	5.1	Request and select resources associated with crushers in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and processing operational aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to calculate quantity, weight, length and area associated with the method/procedures to carry out processing operations using crushers.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and processing materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and processing materials.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to process materials using crushers to the required specification.	8.1	Demonstrate the following work skills when preparing for and processing materials using crushers: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning and processing.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up, and operate crushers to crush and stockpile, or feed additional plant, with a variety of materials to given working instructions.			
		8.4	Shut down and secure crushers.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the crusher used for processing operations</li> <li>carry out function checks for process operations</li> <li>identify the area for the processing work</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>● recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>● carry out the processing work safely and securely</li> <li>● deal with blockages prior to, during and on completion of operations</li> <li>● deposit processed materials</li> <li>● be on the public highway</li> <li>● shut down and secure crusher</li> <li>● use hand tools, ancillary equipment and accessories.</li> </ul>			
		8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and carrying out processing operations.			
		8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to process materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 38: Preparing and operating screeners to process materials in the workplace

**Unit reference number:** M/506/4666

**Level:** 2

**Credit value:** 12

**Guided learning hours:** 40

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## Unit summary

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

## Unit 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 screeners to process materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of screeners to process materials.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of screeners for carrying out processing work.</li> </ul>			
2	Organise with others the sequence and operation in which processing operations using screeners 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	Describe how to organise resources prior to and during processing operations using screeners.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out processing operations using screeners.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out processing operations using screeners.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during processing operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out processing operations using screeners in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to screener use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out processing operations using screeners.	5.1	Request and select resources associated with screeners in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and processing operational aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to calculate quantity, weight, length and area associated with the method/procedures to carry out processing operations using screeners.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and processing materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and processing materials.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to process materials using screeners to the required specification.	8.1	Demonstrate the following work skills when preparing for and processing materials using screeners: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning (where relevant) and processing.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up, position (where relevant) and operate screeners to screen, grade and stockpile, a variety of materials to given working instructions.			
		8.4	Shut down and secure screeners.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the screeners used for processing operations</li> <li>carry out function checks for process operations</li> <li>identify the area for the processing work</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>● recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>● carry out the processing work safely and securely</li> <li>● deal with blockages prior to, during and on completion of operations</li> <li>● deposit processed materials</li> <li>● be on the public highway</li> <li>● shut down and secure screeners</li> <li>● use hand tools, ancillary equipment and accessories.</li> </ul>			
		8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and carrying out processing operations.			
		8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to process materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 39: Preparing and operating batching plant to process materials in the workplace

**Unit reference number:** T/506/4667

**Level:** 2

**Credit value:** 12

**Guided learning hours:** 40

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## Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating batching plant to process materials in the workplace within the relevant sector of industry.

## Unit 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 batching plant to process materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of batching plant to process materials.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of batching plant for carrying out processing work.</li> </ul>			
2	Organise with others the sequence and operation in which processing operations using batching plant 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	Describe how to organise resources prior to and during processing operations using batching plant.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out processing operations using batching plant.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out processing operations using batching plant.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during processing operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out processing operations using batching plant in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to batching plant use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out processing operations using batching plant.	5.1	Request and select resources associated with batching plant in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and processing operational aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to calculate quantity, weight, length and area associated with the method/procedures to carry out processing operations using batching plant.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and processing materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and processing materials.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to process materials using batching plant to the required specification.	8.1	Demonstrate the following work skills when preparing for and processing materials using batching plant: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning (where relevant) and processing.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up, position (where relevant) and operate batching plant to process materials to given working instructions.			
		8.4	Shut down and secure batching plant.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the batching plant used for processing operations</li> <li>carry out function checks for process operations</li> <li>identify the area for the processing work</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• carry out the processing work safely and securely</li> <li>• deal with blockages prior to, during and on completion of operations</li> <li>• deposit processed materials</li> <li>• be on the public highway</li> <li>• shut down and secure batching plant</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
		8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and carrying out processing operations.			
		8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to process materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 40: Preparing for, and arranging and securing plant or machinery for transportation in the workplace**

**Unit reference number: F/506/4669**

**Level: 2**

**Credit value: 16**

**Guided learning hours: 53**

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing for, and arranging and securing plant for haulage in the workplace within the relevant sector of industry.

## **Unit 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 for, and arranging and securing plant for haulage to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation of, and arranging and securing plant or machinery for transportation.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, lift plans, risk assessments, manufacturers' information and current regulations governing the arrangement and security of plant or machinery for transportation.</li> </ul>			
2	Know how to comply with relevant legislation and official guidance when arranging and securing plant or machinery for transportation.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment, whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.		
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports.		
3	Maintain safe and healthy working practices when preparing for and arranging and securing plant or machinery for transportation.	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when arranging and securing plant or machinery for transportation.		
		3.2	Demonstrate compliance with given information and relevant legislation when arranging and securing plant or machinery for transportation in relation to two or more of the following: <ul style="list-style-type: none"> <li>• safe use of access equipment</li> <li>• safe use, storage and handling of materials</li> <li>• safe use and storage of tools and equipment</li> <li>• specific risks to health.</li> </ul>		
		3.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to arranging and securing plant or machinery for transportation, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>		

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.		
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.		
4	Select the required quantity and quality of resources to prepare for, and arrange and secure plant or machinery for transportation.	4.1	Select resources associated with the work in relation to materials, components, fixings, tools and equipment, lifting accessories and load restraint equipment.		
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>lifting accessories and load restraint equipment, steel wire rope, chain, fabric, web hooks, shackles, clamps, netting and sheeting</li> <li>hand tools and ancillary equipment.</li> </ul>		
		4.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.		
		4.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		4.5	Describe any potential hazards associated with the resources and methods of work.		
		4.6	Describe how to identify weight, bearing, pressure, quantity, length and area associated with the method/procedure to carry out the work.		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when preparing for and arranging and securing plant or machinery for transportation.	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		5.2	Prevent damage and maintain a clean work space.			
		5.3	Dispose of waste in accordance with current legislation.			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
6	Complete the work within the allocated time when preparing to, and arranging and securing plant or machinery for transportation.	6.1	Demonstrate completion of the work within the allocated time.			
		6.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			
7	Comply with the given contract information to prepare to, and arrange and secure plant or machinery for transportation to the required specification.	7.1	Demonstrate the following work skills when preparing to, and arranging and securing plant or machinery for transportation: <ul style="list-style-type: none"> <li>measuring, gauging, calculating, selecting, fitting, configuring, testing, balancing, adjusting, securing, positioning and removing.</li> </ul>			
		7.2	Use and maintain hand tools, ancillary equipment, lifting accessories and load restraint equipment.			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.3 Prepare for, and arrange plant, machinery or associated equipment for transportation to given working instructions by at least two of the following methods:</p> <ul style="list-style-type: none"> <li>• driving and operating the following types of plant: wheeled machinery, tracked machinery and rolling machinery onto the transport (non-operational activities)</li> <li>• suspended loads by slinging and signalling; at least three of the following: balanced, unbalanced, loose, bundled, containers, drums (slinging and signalling)</li> <li>• by directing and guiding the operations of lifting plant (not craneage), e.g. lift truck, excavator</li> <li>• directing and guiding machine operators (movement)</li> <li>• driving transport into plant or machinery on hydraulic jack legs or suspended from a gantry (raised loads).</li> </ul>			
	7.4 Secure plant, machinery or associated equipment for safe movement.			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• determine vehicle capacity</li> <li>• determine weights and sizes (height, length, width) of plant and machinery to be loaded</li> <li>• check loading and unloading areas</li> <li>• recognise the requirements to drive and operate plant and machinery for loading and unloading under no load conditions</li> <li>• recognise the requirements to sling and signal loads for transportation</li> <li>• recognise the requirements to direct and guide the operations of plant or machinery for loading and unloading</li> <li>• recognise the requirements to direct and guide the movement of vehicles, plant and machinery for loading and unloading</li> <li>• recognise the requirements to load equipment using hydraulic jacks and supports</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>● ensure load is prepared for transportation, secured, restrained, immobilised, hydraulic systems locked, articulation and slew systems locked</li> <li>● differentiate between load restraint equipment and lifting accessories</li> <li>● recognise proximity hazards</li> <li>● select and use suitable lifting accessories and load restraint equipment</li> <li>● arrange and secure loads</li> <li>● recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>● confirm balance, stability and correct weight distribution</li> <li>● check stability and weight distribution of load prior to releasing securing restraints and lifting accessories</li> <li>● load and unload on a public highway</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		7.7 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• identify and mark overhangs</li> <li>• remove and store lifting accessories and load restraint equipment on completion of loading and unloading</li> <li>• use hand tools and ancillary equipment</li> <li>• use access equipment</li> <li>• work at height.</li> </ul>			
		7.8 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and arranging and securing plant or machinery for transportation.			
		7.9 Describe how to maintain the hand tools, ancillary equipment, lifting accessories and load restraint equipment used to arrange and secure plant or machinery for transportation.			

Learner name: \_\_\_\_\_

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Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*



## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to preparing to, and directing and guiding the movement of vehicles, plant or machinery.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, plant and vehicle movement plans and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, plant and vehicle movement plans, manufacturers' information and Codes of Practice for the direction and guidance of vehicles, plant and machinery.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Organise with others the sequence and operation in which directing and guiding the movement of vehicles, plant or machinery is 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	Describe how to organise resources prior to and during directing and guiding vehicles, plant or machinery.			
3	Know how to comply with relevant legislation and official guidance when directing and guiding the movement of vehicles, plant or machinery.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Maintain safe and healthy working practices when preparing to, directing and guiding the movement of vehicles, plant or machinery.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements when directing and guiding vehicles, plant or machinery.			
		4.2	Demonstrate compliance with given information and relevant legislation when directing and guiding the movement of vehicles, plant or machinery in relation to two or more of the following: <ul style="list-style-type: none"> <li>• safe use and storage of tools</li> <li>• safe use and storage of equipment</li> <li>• specific risks to health.</li> </ul>			
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to directing and guiding vehicles, plant or machinery, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Select the required quantity and quality of resources to prepare to, and direct and guide the movement of vehicles, plant or machinery.	5.1	Select resources associated with directing and guiding vehicles, plant or machinery in relation to hand tools, ancillary equipment and signalling and communication equipment.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• signalling and communication equipment</li> <li>• barriers, cones, signs</li> <li>• lighting equipment</li> <li>• hand tools and ancillary equipment.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight/bearing pressures, quantity, length and area associated with the method/procedures for directing and guiding the movement of vehicles, plant and machinery.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Minimise the risk of damage to the work and surrounding area when preparing to and directing and guiding the movement of vehicles, plant or machinery.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to, and directing and guiding the movement of vehicles, plant or machinery.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to prepare to, and direct and guide the movement of vehicles, plant or machinery to the required specification.	8.1	Demonstrate the following work skills when preparing to, and directing and guiding vehicles, plant or machinery: <ul style="list-style-type: none"> <li>measuring, gauging, estimating, interpreting, judging, explaining, preparing, commanding, directing, guiding, indicating, informing, instructing, signing, positioning, moving, securing, signalling and relaying.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and signalling equipment.			
		8.3	Prepare to, and direct and guide the movement of loaded and unloaded vehicles, including articulated vehicles and plant or machinery (wheeled or tracked) to given working instructions, relating to the following: <ul style="list-style-type: none"> <li>hand signals</li> <li>hand signalling equipment</li> <li>verbal/electronic communication equipment.</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• identify the differences between directing and guiding movement, directing and guiding operations and slinging and signalling</li> <li>• interpret a work management plan and vehicle movement plan</li> <li>• identify the hierarchy of traffic control measures and pedestrian separation</li> <li>• organise and ensure the maintenance of holding areas, routes, exclusion zones, markers and signs</li> <li>• assess and determine the movement of vehicles, plant and machinery, to include own position of safety, visibility, ground conditions and features, proximity hazards and weight limits</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>● recognise and react to changing conditions, ground, environment, weather, light, numbers and types of vehicles, plant and machinery</li> <li>● liaise with, convey and collect information from and to, drivers and operators</li> <li>● recognise and utilise movement aids (camera's, mirrors, audio and visual warnings, etc.)</li> <li>● recognise blind-spots, potential crush zones and other limitations to driver visibility</li> <li>● recognise the requirements of directing and guiding the movement of vehicles, plant and machinery onto and from public highways</li> <li>● recognise the requirements of working on public highways</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• direct and guide different vehicle types and size e.g. height, weight length, width, tracked, wheeled and articulated</li> <li>• assess and determine the movement of loads, including unloading, discharging and loading requirements</li> <li>• direct and guide vehicles, plant and machinery across rough or uneven terrain</li> <li>• check the integrity of load securing equipment and stability of loads, prior to commencement of movements and on arrival, prior to release</li> <li>• signal and communicate following recognised and agreed operational procedures</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• use hand tools and ancillary equipment.</li> </ul>			
	<p>8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and directing and guiding vehicles, plant or machinery.</p>			
	<p>8.8 Describe how to maintain the hand tools, ancillary equipment, and signalling and communication equipment used to direct and guide vehicles, plant or machinery.</p>			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 42: Slinging and hand signalling the movement of suspended loads in the workplace

**Unit reference number:** R/506/3929

**Level:** 2

**Credit value:** 10

**Guided learning hours:** 33

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## Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in slinging and signalling the movement of loads (secondary role) in the workplace within the relevant sector of industry.

This unit is designed for those undertaking slinger/signaller duties in a secondary or part-time role in support of a learner's main occupation. Other units of competence exist for those undertaking slinging and signalling as a main occupation.

## Unit 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 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.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

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.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, method statements (lift plans) and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, lift plans, work instructions, manufacturers' information, approved procedures and Codes of Practice.</li> </ul>			
2	Organise with others the sequence and operation in which the slinging and signalling of loads is 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	Describe how to organise resources prior to and when slinging and signalling of loads.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance to carry out slinging and signalling of loads.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and slinging and signalling loads.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements when slinging and signalling loads.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out the slinging and signalling of loads in relation to at least three of the following: <ul style="list-style-type: none"> <li>safe use and storage of tools and equipment</li> <li>safe use, storage and handling of lifting accessories</li> <li>safe use of access equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to slinging and signalling of loads, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Select the required quantity and quality of resources to prepare for and when slinging and signalling loads.	5.1	Select resources associated with slinging/signalling in relation to lifting accessories/aids, hand tools and ancillary equipment.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• lifting accessories</li> <li>• signalling and communication equipment</li> <li>• hand tools and ancillary equipment.</li> </ul>			
		5.3	Describe how the resources should be used correctly, and how problems associated with the resources are reported.			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out slinging/signalling.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and slinging and signalling loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and slinging and signalling loads.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to prepare to and sling and signal suspended loads for movement to the required specification.	8.1	Demonstrate the following work skills when preparing to and slinging and signalling loads: <ul style="list-style-type: none"> <li>measuring, gauging, estimating, calculating, fitting, fixing, testing, balancing, interpreting, inspecting, judging, explaining, preparing, indicating, informing, instructing, signing, positioning, adjusting, configuring, moving, securing, signalling and relaying.</li> </ul>			
		8.2	Use and maintain lifting accessories, lifting aids and equipment.			
		8.3	Inspect and prepare lifting accessories prior to slinging.			
		8.4	Prepare to and attach suspended loads to lifting equipment, using appropriate lifting accessories and load securing methods, to given working instructions for three of the following: <ul style="list-style-type: none"> <li>balanced</li> <li>unbalanced</li> <li>loose</li> <li>bundled</li> <li>container</li> <li>drum</li> <li>a load where the machine operator cannot observe its full movement path.</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.5 Guide, move and place suspended loads to specified destinations, using hand signals, to given working instructions for three of the following:</p> <ul style="list-style-type: none"> <li>• balanced</li> <li>• unbalanced</li> <li>• loose</li> <li>• bundled</li> <li>• container</li> <li>• drum</li> <li>• a load where the machine operator cannot observe its full movement path.</li> </ul>			
	<p>8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• identify the differences between: slinging and signalling, directing and guiding movement of vehicles, plant and machinery, and directing and guiding operations of plant and machinery not being used for lifting operations</li> <li>• confirm the authority, duties and responsibilities allocated</li> <li>• identify characteristics of lifting equipment and lifting accessories</li> <li>• identify and interpret valid certification for maintenance, inspection and thorough examination</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date	
		<p>8.7 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>● lift and transfer people</li> <li>● sling balanced, unbalanced, loose, live, bundled, container drum loads and loads that are blind to the equipment operator</li> <li>● communicate using hand signals, hand signalling equipment (lights, wands, fluorescent gloves, flags) and electronic communication equipment (loud hailers, radios)</li> <li>● confirm methods of communication</li> <li>● recognise blind-spots, potential crush zones and other limitations to driver visibility</li> <li>● consider the load characteristics including centre of gravity and lifting points to determine the method of slinging</li> <li>● determine and check the route of the load before and during the lift including distances, clearances and landing position</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.8 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• select, handle, inspect and use (assemble, set up and adjust) lifting accessories and aids</li> <li>• identify rejection criteria for removing lifting accessories from service</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• attach lifting accessories and sling loads securely</li> <li>• ensure balance and stability of loads</li> <li>• attach and use load guidance equipment (tag lines)</li> <li>• guide and place suspended loads by recognised methods of communication and agreed operational procedures</li> <li>• land and position loads safely and securely</li> <li>• remove and store lifting accessories</li> <li>• use hand tools and ancillary equipment.</li> </ul>			
	<p>8.9 Describe the needs of other occupations and how to communicate within a team when preparing to and slinging and signalling loads.</p>			
	<p>8.10 Describe how to maintain the lifting accessories, lifting aids and signalling and communication equipment used to sling and signal loads.</p>			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 43: Operating Plant or Machinery for Non-operational Activities in the Workplace

**Unit reference number:** L/505/0175

**Level:** 2

**Credit value:** 10

**Guided learning hours:** 33

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## Unit summary

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence operating Plant or Machinery for Non-operational Activities in the Workplace within the relevant sector of industry.

## Unit assessment requirements/evidence requirements

This unit must be assessed in a work environment, 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.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

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

- Hand-operated power tools
- Static machinery
- Pedestrian controlled equipment
- Tracked plant
- Wheeled plant
- Rollers

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when operating plant or machinery for non-operational activities.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments, user manuals and manufacturers' information related to the plant or machinery operation and the activity to be completed.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, user manuals, manufacturers' information and current regulations governing the operation of plant and machinery</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Organise with others the sequence in which the work is to be carried out when operating plant or machinery for non-operational activities.	2.1	Organise the work in accordance with given information or instructions.			
		2.2	Communicate with team members and other associated occupations about the plant or machinery operation and work to be carried out.			
		2.3	Describe how to communicate ideas between team members and other associated occupations.			
		2.4	Describe how to organise resources in conjunction with the progress of work.			
3	Know how to comply with relevant, current legislation, special legal status documents, official guidance and organisational procedures when operating plant or machinery for non-operational activities.	3.1	Describe their responsibilities regarding potential accidents and health hazards, whilst working: <ul style="list-style-type: none"> <li>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.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Maintain safe and healthy working practices when operating plant or machinery for non-operational activities.	4.1	Use health and safety control equipment and access equipment (if applicable) safely to carry out the activity in accordance with current legislation and organisational requirements when operating plant or machinery for non-operational activities.			
		4.2	Comply with information relating to specific risks to health when operating plant or machinery for non-operational activities.			
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to operating plant or machinery for non-operational activities and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given instructions.			
		4.5	Describe 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.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Request and select the required quantity and quality of resources to operate plant or machinery for non-operational activities.	5.1	Request and select resources associated with own work in relation to tools, ancillary equipment and/or accessories and consumables.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> <li>• consumables</li> <li>• hand tools, ancillary equipment and/or accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to calculate weight, bearing pressure, quantity, length and area associated with the method/procedure to operate plant or machinery for non-operational activities.			
6	Minimise the risk of damage to the work and surrounding area when operating plant or machinery for non-operational activities.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Minimise damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when operating plant or machinery for non-operational activities.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of progress charts, timetables and estimated times</li> <li>• organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			
8	Comply with the given contract information to operate plant or machinery for non-operational activities to the required specification.	8.1	Demonstrate the following work skills when operating plant or machinery for non-operational activities: <ul style="list-style-type: none"> <li>• preparing, setting up, configuring, starting, manoeuvring, running, supporting, parking, stopping and securing.</li> </ul>			
		8.2	Prepare, configure and operate plant or machinery for non-operational activities, (e.g. inspection, repair, maintenance, testing or travel), to given working instructions for two of the following: <ul style="list-style-type: none"> <li>• hand-operated power tools</li> <li>• static machinery</li> <li>• pedestrian controlled equipment</li> <li>• tracked plant</li> <li>• wheeled plant</li> <li>• rollers.</li> </ul>			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
	8.3	Shut down and secure plant or machinery to given working instructions.			
	8.4	Record and report findings using the appropriate method, in accordance with given working instructions.			
	8.5	Safely use plant, machinery, hand tools, ancillary equipment and/or accessories.			
	8.6	Safely store the plant, machinery, tools, equipment and/or accessories used when operating plant or machinery for non-operational activities.			
	8.7	<p>Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• identify capabilities, characteristic and limitations of plant and machinery (ride on and remote control) including hand-operated power tools, static machinery, pedestrian controlled equipment, wheeled plant and tracked plant, rollers</li> <li>• consider the area available for the movements required (height restrictions, obstructions, overhead / underground obstructions, services, ventilation and point loading)</li> <li>• complete pre-use, pre-start and pre-movement checks</li> <li>• prepare the plant and machine for operation</li> <li>• manoeuvre and position plant and machine</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.8 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• manoeuvre plant and machinery on slopes and inclines, uneven terrain, rough terrain, un-compacted ground, areas with restricted clearances, in inclement and extreme weather and areas where there is other vehicle and pedestrian traffic</li> <li>• operate plant and machinery within operational limitations</li> </ul>			
	<p>8.9 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:</p> <ul style="list-style-type: none"> <li>• support plant and machinery for the activity (inspection, repair, maintenance, testing or travel)</li> <li>• follow signals and instructions</li> <li>• shut down, park and secure plant and machine</li> <li>• immobilise plant and machinery</li> <li>• prepare plant and machinery for transportation</li> <li>• report findings and defects</li> <li>• use hand tools, ancillary equipment and accessories</li> <li>• work at height</li> <li>• use access equipment</li> <li>• complete and maintain records</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.10 Describe the needs of other occupations and how to effectively communicate within a team when operating plant or machinery for non-operational activities.			
		8.11 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and/or accessories used when operating plant or machinery for non-operational activities.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 44: **Preparing and operating road/rail adapted plant in the workplace**

**Unit reference number:** T/506/4670

**Level:** 2

**Credit value:** 8

**Guided learning hours:** 27

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating road/rail adapted plant in the workplace within the relevant sector of industry.

## **Unit 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 road/rail adapted plant to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of road/rail plant and the work to be carried out.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, work package plans, method statements, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, lift plans, work package plans, risk assessments, certification and manufacturers' information for the operation of road/rail plant.</li> </ul>			
2	Organise with others the sequence and operation in which road/rail plant operations 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	Describe how to organise resources prior to and during road/rail plant operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when preparing to and carrying out road/rail plant operations.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out road/rail plant operations.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during road/rail plant operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out road/rail plant operations in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to road/rail plant operations, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out road/rail plant operations.	5.1	Request and select resources associated with the work in relation to consumables, materials, tools, ancillary equipment, attachments and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, fittings, fuels, oils and lubricants</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out the work.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and operating road/rail plant.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and operating road/rail plant.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to prepare for and operate road/rail plant to the required specification.	8.1	Demonstrate the following work skills when preparing to use and operate road/rail plant: <ul style="list-style-type: none"> <li>• preparing, manoeuvring, configuring, placing, travelling, negotiating, setting, operating and removing.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment, attachments and/or accessories.			
		8.3	Prepare and operate road/rail adapted plant by placing on and off the rails, travelling to the work area and carrying out operations to given working instructions for one or more of the following: <ul style="list-style-type: none"> <li>• lift, carry and/or transfer</li> <li>• extract</li> <li>• excavate</li> <li>• construct and/or form</li> <li>• receive and/or transport</li> <li>• access as a work platform</li> <li>• lay and/or distribute</li> <li>• compact</li> <li>• demolish and/or process.</li> </ul>			
		8.4	Shut down and secure road/rail plant.			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date	
		<p>8.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>● identify the characteristics of the road/rail plant for rail operations</li> <li>● prepare, set up and adjust for operational requirements</li> <li>● operate, maintain, shut down and secure road rail plant and machinery</li> <li>● identify the documentation and certification requirements for road rail plant, machinery, equipment and attachments</li> <li>● operate radios</li> <li>● recognise current signalling systems in use for road/rail plant</li> <li>● place plant and machine on and off the rails</li> <li>● identify the criteria for movements within possessions</li> <li>● recognise and avoid damage to axle counter equipment, force transducers and accelerometers</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• avoid damage to infrastructure, including track, line-side and under-track equipment supporting structures, routes of cables and services</li> <li>• work on cants or gradients</li> <li>• negotiate points and crossings</li> <li>• move failed machines</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• be on the public highway</li> <li>• shut down and secure road/rail plant</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out road/rail plant operations.			
	8.8 Describe how to maintain the hand tools, plant and machinery and ancillary equipment used for road/rail plant operations.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 45: **Preparing and operating plant or machinery attachments in the workplace**

**Unit reference number:** A/506/4671

**Level:** 2

**Credit value:** 7

**Guided learning hours:** 23

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating Plant or Machinery attachments in the Workplace within the relevant sector of industry.

## **Unit 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.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant Rule of Combination (RoC). Please refer to the RoC applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of plant or machinery attachments.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing plant and machinery attachments.</li> </ul>			
2	Organise with others the sequence and operation of plant or machinery attachment use.	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	Describe how to organise resources prior to and during attachment use.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when preparing and using plant or machinery attachments.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting applicable to attachment use.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and using plant or machinery attachments.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements when using attachments.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out plant or machinery operations using attachments in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to use of plant or machinery attachments, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>collective protective measures</li> </ul>			

			<ul style="list-style-type: none"> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other particular task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and use plant or machinery attachments.	5.1	Request and select resources associated with own work in relation to consumables, materials, attachments, tools and ancillary equipment.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• fittings, fuels, oils and lubricants</li> <li>• attachments, accessories</li> <li>• hand tools and ancillary equipment.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedure to carry out the work using relevant attachments.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Minimise the risk of damage to the work and surrounding area when preparing for and using plant or machinery attachments.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and using plant or machinery attachments.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to prepare for and operate plant or machinery attachments to the required specification.	8.1	Demonstrate the following work skills when preparing for and using attachments: <ul style="list-style-type: none"> <li>• preparing, configuring, aligning, fitting, connecting, fastening, adjusting, securing, checking, manoeuvring, operating, disconnecting, removing and storing.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, fit and operate plant or machinery attachments to given working instructions for one or more of the following tasks: <ul style="list-style-type: none"> <li>• lift and transfer</li> <li>• cut, shear or sever</li> <li>• bore or drill</li> <li>• drive</li> <li>• hammer</li> <li>• vibrate</li> <li>• removal</li> <li>• compact or level</li> <li>• mixing</li> <li>• access (as a work platform)</li> <li>• demolish or process.</li> </ul>			
		8.4	Remove attachments from host plant following operations and leave in a safe situation.			
		8.5	Shut down and secure the host item of plant and attachment.			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>● identify relevant attachment documentation</li> <li>● select attachment compatible to the plant and machinery for: lifting, transferring, cutting, shearing, severing, boring, drilling, driving, hammering, vibrating, removing, compacting, levelling, mixing, accessing, demolishing and processing</li> <li>● configure host plant or machinery to accept attachments</li> <li>● fit attachments</li> <li>● operate, maintain, manoeuvre, shut down and secure plant with an attachment</li> </ul>			
	<p>8.7 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>● recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>● recognise signals to fit and remove attachments</li> <li>● disconnect attachments</li> <li>● remove attachments and move plant and machinery</li> <li>● secure and store attachments</li> <li>● transport attachments</li> <li>● use hand tools and equipment.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.8 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and using plant or machinery attachments.			
		8.9 Describe how to maintain the plant and machinery, hand tools, attachments and ancillary equipment used to carry out the work.			

Learner name: \_\_\_\_\_

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Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*



## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of wheeled loading shovels to carry out excavating operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of wheeled loading shovels for excavation work.</li> </ul>			
2	Organise with others the sequence and operation in which excavating operations using wheeled loading shovels 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	Describe how to organise resources prior to and during excavating operations using wheeled loading shovels.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out excavating operations using wheeled loading shovels.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out excavating operations using wheeled loading shovels.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during excavating operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out excavating operations using wheeled loading shovels in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to wheeled loading shovel use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out excavating operations using wheeled loading shovels.	5.1	Request and select resources associated with wheeled loading shovels in relation to consumables, materials, attachments, tools and ancillary equipment.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and excavation aids</li> <li>• hand tools, ancillary equipment and accessories</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify quantity, weight, length and area associated with the method/procedures to carry out excavating operations using wheeled loading shovels.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and excavating materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and excavating materials.	7.1	Demonstrate completion of the work within the allocated time			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to excavate materials using wheeled loading shovels to the required specification.	8.1 Demonstrate the following work skills when preparing for and excavating using wheeled loading shovels: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, excavating, measuring and removing.</li> </ul>			
		8.2 Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3 Prepare, position, set up and operate wheeled loading shovels to given working instructions to: <ul style="list-style-type: none"> <li>excavate materials</li> <li>load and/or stockpile excavated materials.</li> </ul>			
		8.4 Shut down and secure wheeled loading shovels.			
		8.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the wheeled loading shovel used for excavating operations</li> <li>carry out function checks for excavation work</li> <li>identify the area to be excavated</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify geological, environmental and material changes and report</li> <li>check to avoid damage to structures and utilities service apparatus</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• excavate accurately to line and level</li> <li>• form stockpiles</li> <li>• use equipment to gauge and measure</li> <li>• be on the public highway</li> <li>• excavate, remove and load materials safely and securely</li> <li>• shut down and secure wheeled loading shovels</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and carrying out excavating operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to excavate materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

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Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

(if sampled)

# **Unit 47: Preparing and operating skid steer loaders to excavate in the workplace**

**Unit reference number: M/506/4828**

**Level: 2**

**Credit value: 20**

**Guided learning hours: 67**

## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating skid steer loaders to excavate in the workplace within the relevant sector of industry.

## **Unit 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.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of skid steer loaders to carry out excavating operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of skid steer loaders for excavation work.</li> </ul>			
2	Organise with others the sequence and operation in which excavating operations using skid steer loaders 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	Describe how to organise resources prior to and during excavating operations using skid steer loaders.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out excavating operations using skid steer loaders.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out excavating operations using skid steer loaders.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during excavating operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out excavating operations using skid steer loaders in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to skid steer loader use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out excavating operations using skid steer loaders.	5.1	Request and select resources associated with skid steer loaders in relation to consumables, materials, attachments, tools and ancillary equipment.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and excavation aids</li> <li>• hand tools, ancillary equipment and accessories</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify quantity, weight, length and area associated with the method/procedures to carry out excavating operations using skid steer loaders.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and excavating materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and excavating materials.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to excavate materials using skid steer loaders to the required specification.	8.1	Demonstrate the following work skills when preparing for and excavating using skid steer loaders: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, excavating, measuring and removing.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, position, set up and operate skid steer loaders to given working instructions to: <ul style="list-style-type: none"> <li>excavate materials</li> <li>load and/or stockpile excavated materials.</li> </ul>			
		8.4	Shut down and secure skid steer loaders.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the skid steer loader used for excavating operations</li> <li>carry out function checks for excavation work</li> <li>identify the area to be excavated</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify geological, environmental and material changes and report</li> <li>check to avoid damage to structures and utilities service apparatus</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• excavate accurately to line and level</li> <li>• form stockpiles</li> <li>• use equipment to gauge and measure</li> <li>• be on the public highway</li> <li>• excavate, remove and load materials safely and securely</li> <li>• shut down and secure skid steer loaders</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and carrying out excavating operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to excavate materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

(if sampled)

# **Unit 48: Preparing and operating plant or machinery to sweep, clean or clear in the workplace**

**Unit reference number: D/506/4677**

**Level: 2**

**Credit value: 13**

**Guided learning hours: 58**

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating plant or machinery to sweep, clean or clear in the workplace within the relevant sector of industry.

## **Unit 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.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant Rule of Combination (RoC). Please refer to the RoC applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of plant or machinery to sweep, clean or clear.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, work instructions, manufacturers' information, waste carriers register and current regulations governing the operation of plant or machinery.</li> </ul>			
2	Organise with others the sequence and operation in which sweeping, cleaning or clearing operations using plant or machinery 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	Describe how to organise resources prior to and during sweeping, cleaning or clearing operations with plant or machinery.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out sweeping, cleaning or clearing operations.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and operating plant or machinery to sweep, clean or clear.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during sweeping, cleaning or clearing operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out sweeping, cleaning or clearing operations using plant or machinery in relation to the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to plant or machinery use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out sweeping, cleaning or clearing operations using plant or machinery.	5.1	Request and select resources associated with sweeping, cleaning or clearing operations in relation to consumables, materials, tools, ancillary equipment and accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables</li> <li>• brushes, hoses and nozzles</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, bearing, pressure, quantity, length and area associated with the method/procedures to operate plant or machinery for sweeping, cleaning or clearing operations.			
6	Minimise the risk of damage to the work and surrounding area when preparing for and operating plant or machinery to sweep, clean or clear.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and operating plant or machinery to sweep, clean or clear.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to operate plant or machinery to sweep, clean or clear to the required specification.	8.1	Demonstrate the following work skills when preparing for, and operating plant or machinery to sweep, clean or clear: <ul style="list-style-type: none"> <li>checking, preparing, refilling, replenishing, setting up, aligning, engaging, adjusting, manoeuvring, emptying, washing out, clearing and cleaning.</li> </ul>			
		8.2	Use and maintain hand tools and ancillary equipment.			
		8.3	Prepare, set up and operate plant or machinery to carry out three or more of the following operations to given working instructions: <ul style="list-style-type: none"> <li>sweep</li> <li>scrub clean</li> <li>hose clean</li> <li>pressure wash clean</li> <li>empty or clear by suction</li> <li>blow clear.</li> </ul>			
		8.4	Shut down and secure plant or machinery.			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• identify the characteristics of the plant, machinery and equipment used to sweep, clean and clear</li> <li>• liaise with site representative</li> <li>• complete pre-use and post stop checks for sweeper, cleaner, clearer and ancillary equipment</li> <li>• carry out functional checks</li> <li>• identify the area to be swept, cleaned and cleared</li> <li>• check to avoid damage to structures, utilities service apparatus, vehicles, people and animals</li> <li>• prepare, set up and adjust for operational requirements, safety and security</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• operate plant, machinery and equipment; gears, clutch, brake, steering, reversing aids, speed and position for sweeping, cleaning and clearing patterns, sequences and operations</li> <li>• monitor operations making use of audio and visual aids</li> <li>• identify and deal with waste streams</li> <li>• empty and discharge hopper and dispose of arisings</li> <li>• recognise and avoid fly tipping</li> <li>• form stockpiles</li> <li>• replenish, refill water from remote hydrants</li> <li>• monitor brush wear</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.7 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>● recognise and determine when specialist skills and knowledge are required and report accordingly</li> <li>● be on the public highway</li> <li>● deal with spills of oil, diesel, petrol and chemicals</li> <li>● washout hopper</li> <li>● operate in various conditions, day, night, low light, restricted visibility, changing weather conditions</li> <li>● shut down and secure plant or machinery</li> <li>● use hand tools, ancillary equipment and accessories.</li> </ul>			
		8.8 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and operating plant or machinery to sweep, clean or clear.			
		8.9 Describe how to maintain the plant or machinery, hand tools, ancillary equipment and accessories used to sweep, clean or clear.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 49: Controlling, directing and guiding the operation of plant or machinery in the workplace**

**Unit reference number: Y/506/4676**

**Level: 2**

**Credit value: 18**

**Guided learning hours: 60**

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in controlling, directing and guiding the operation of plant or machinery in the workplace within the relevant sector of industry.

## **Unit 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.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to controlling, directing and guiding the operation of plant or machinery.	1.1	Interpret and extract relevant information from specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, work instructions, manufacturers' information and official guidance for controlling, directing and guiding the operations of plant and machinery.</li> </ul>			
2	Organise with others the sequence and operation in which directing and guiding operations 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	Describe how to organise resources prior to and during directing and guiding the operation of plant and machinery.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out controlling, directing and guiding operations of plant or machinery.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when controlling, directing and guiding the operation of plant and machinery.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during controlling, directing and guiding the operation of plant and machinery.			
		4.2	Demonstrate compliance with given information and relevant legislation when controlling, directing and guiding the operation of plant and machinery in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of tools</li> <li>safe use and storage of equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to directing and guiding operations of plant and machinery, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Select the required quantity and quality of resources to direct and guide the operation of plant and machinery.	5.1	Select resources associated with directing and guiding the operation of plant and machinery in relation to hand tools, ancillary equipment, and signalling and communication equipment.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• signalling and communication equipment</li> <li>• hand tools and ancillary equipment</li> <li>• electronic guidance equipment, global positioning systems and laser marking devices</li> <li>• measuring equipment (pegs, tapes, strings, lines and levels).</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.		
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to identify weight and bearing pressures quantity, length, area and volume associated with the method/procedure for controlling, directing and guiding the operation of plant and machinery.		
6	Minimise the risk of damage to the work and surrounding area when controlling, directing and guiding the operation of plant and machinery.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Complete the work within the allocated time when controlling, directing and guiding the operation of plant and machinery.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			
8	Comply with the given contract information to control, direct and guide the operation of plant or machinery to the required specification.	8.1	Demonstrate the following work skills when controlling, directing and guiding the operation of plant or machinery: <ul style="list-style-type: none"> <li>measuring, gauging, estimating, interpreting, judging, explaining, preparing, commanding, directing, guiding, indicating, informing, instructing, signing, positioning, moving, securing, signalling and relaying.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment, and signalling and communication equipment.			
		8.3	Control, direct and guide the operation of plant or machinery not being used for lifting operations, but including plant or machinery used as work platforms, to given working instructions, relating to the following: <ul style="list-style-type: none"> <li>hand signals</li> <li>hand signalling equipment</li> <li>verbal and electronic communication equipment.</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• identify the differences between directing and guiding operations, directing and guiding movement and slinging and signalling</li> <li>• interpret work plans</li> <li>• assess and determine the operation of plant and machinery (not being used for lifting operation but including plant or machinery used as work platforms) to include own position, visibility, ground conditions and features, proximity hazards and weight limits</li> <li>• identify the operational characteristics and limitations of plant and machinery, width, length, height, radius, reach, capacity</li> <li>• recognise blind-spots, potential crush zones and other limitations to operator visibility</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• control, direct and guide the operation of plant and machinery not being used for lifting operations to extract, excavate, construct, form, receive, transport, access, lay, distribute, compact, process, sweep, clean and clear</li> <li>• assess and determine the movement of extracted and excavated materials or commodities including the formation and removal of stockpiles, unloading, discharging and loading</li> <li>• control, direct and guide the operation of plant and machinery not being used for lifting operations on rough, uneven terrain and in areas of restricted movement</li> <li>• ensure the integrity of equipment, structures, materials and components close to operations while directing and guiding</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>● recognise and utilise measurement and operation monitoring aids, pegs, tapes, strings, lines and levels, electronic guidance equipment, global positioning systems and laser marking devices</li> <li>● check measurements</li> <li>● signal and communicate following recognised and agreed operational procedures</li> <li>● recognise requirements for working on public highways</li> <li>● recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>● use hand tools, ancillary equipment, and signalling and communication equipment.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when controlling, directing and guiding the operation of plant and machinery.			
	8.8 Describe how to maintain hand tools, ancillary equipment, signalling and communication equipment used to control, direct and guide the operation of plant and machinery.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 50: **Setting out secondary dimensional work control in the workplace**

**Unit reference number:** J/506/4673

**Level:** 2

**Credit value:** 7

**Guided learning hours:** 23

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in setting out secondary dimensional work control in the workplace within the relevant sector of industry.

## **Unit 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 setting out secondary dimensional work control to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to setting out dimensional control of the work.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and reference points.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, reference points and current regulations governing buildings and construction work.</li> </ul>			
2	Know how to comply with relevant legislation and official guidance to set out dimensional control of the work.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports.		
3	Maintain safe and healthy working practices when setting out dimensional control of the work.	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during setting out dimensional control of the work.		
		3.2	Demonstrate compliance with given information and relevant legislation when setting out dimensional control of the work in relation to two or more of the following: <ul style="list-style-type: none"> <li>• safe use of access equipment/working platforms</li> <li>• safe handling of materials</li> <li>• safe use and storage of materials, tools and equipment</li> <li>• specific risks to health.</li> </ul>		
		3.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to setting out dimensional control of the work, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>		
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
4	Select the required quantity and quality of resources to set out dimensional control of the work.	4.1	Select resources associated with the work in relation to measuring tools and instruments, marking materials/components, tools and equipment.			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• measuring tools and instruments</li> <li>• marking equipment</li> <li>• level and alignment tools.</li> </ul>			
		4.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			
		4.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		4.5	Describe any potential hazards associated with the resources and methods of work.			
		4.6	Describe how to identify quantity of resources associated with the method/procedure to set out for secondary dimensional work control.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Minimise the risk of damage to the work and surrounding area when setting out dimensional control of the work.	5.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		5.2	Prevent damage and maintain a clean work area.			
		5.3	Dispose of waste in accordance with current legislation.			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
6	Complete the work within the allocated time when setting out dimensional control of the work.	6.1	Demonstrate completion of the work within the allocated time.			
		6.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			
7	Comply with the given contract information to set out dimensional control of the work to the required specification.	7.1	Demonstrate the following work skills when setting out dimensional control of the work: <ul style="list-style-type: none"> <li>transferring, transposing, levelling, measuring, marking, positioning, fixing and securing.</li> </ul>			
		7.2	Use and maintain hand tools, measuring and marking equipment.			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	7.3 Set out secondary dimensional control for the work to given working instructions for three or more of the following: <ul style="list-style-type: none"> <li>• line</li> <li>• level</li> <li>• depth</li> <li>• area</li> <li>• height</li> <li>• angle.</li> </ul>			
	7.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• measure and set out secondary dimensional control for the work</li> <li>• measure, align and level to dimensional control requirements</li> <li>• transfer and set out lines, angles and levels to dimensional control requirements</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• use hand tools, measuring and marking equipment</li> <li>• work at height</li> <li>• use access equipment.</li> </ul>			
	7.5 Describe how to calculate height, depth, angle, length and area associated with the method/procedure to set out secondary dimensional work control.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		7.6	Describe the needs of other occupations and how to effectively communicate within a team when setting out dimensional control of the work.			
		7.7	Describe how to maintain the hand tools, measuring, marking and ancillary and equipment used to set out dimensional control of the work.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 51: Moving, Handling and Storing Resources in the Workplace**

**Unit reference number: F/503/1171**

**Level: 2**

**Credit value: 5**

**Guided learning hours: 17**

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in moving, Handling and Storing Resources in the Workplace within the relevant sector of industry.

## **Unit assessment requirements/evidence requirements**

This unit must be assessed in a work environment, 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.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Comply with given information when moving, handling and/or storing resources.	1.1	Interpret the given information relating to moving, handling and/or storing resources, relevant to the given occupation.			
		1.2	Interpret the given information relating to the use and storage of lifting aids and equipment.			
		1.3	Describe the different types of technical, product and regulatory information, their source and how they are interpreted.			
		1.4	State the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented.			
		1.5	Describe how to obtain information relating to using and storing lifting aids and equipment.			
2	Know how to comply with relevant legislation and official guidance when moving, handling and/or storing resources.	2.1	Describe their responsibilities under current legislation and official guidance whilst working: <ul style="list-style-type: none"> <li>in the workplace, in confined spaces, 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.</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		2.3	Explain what the accident reporting procedures are and who is responsible for making the reports.		
		2.4	State the appropriate types of fire extinguishers relevant to the work.		
		2.5	Describe how and when the different types of fire extinguishers, relevant to the given occupation, are used in accordance with legislation and official guidance.		
3	Maintain safe working practices when moving, handling and/or storing resources.	3.1	Use health and safety control equipment safely to carry out the activity in accordance with legislation and organisational requirements when moving, handling and/or storing resources.		
		3.2	Use lifting aids safely as appropriate to the work.		
		3.3	Protect the environment in accordance with safe working practices as appropriate to the work.		
		3.4	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to moving, handling and/or storing resources, and the types, purpose and limitations of each type, the work situation, occupational use and the general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>		
		3.5	Describe how the health and safety control equipment relevant to the work should be used in accordance with the given instructions.		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		3.6	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.			
4	Select the required quantity and quality of resources for the methods of work to move, handle and/or store occupational resources.	4.1	Select the relevant resources to be moved, handled and/or stored, associated with own work.			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the occupational resources in relation to: <ul style="list-style-type: none"> <li>lifting and handling aids</li> <li>container(s)</li> <li>fixing, holding and securing systems.</li> </ul>			
		4.3	Describe how the resources should be handled and how any problems associated with the resources are reported.			
		4.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		4.5	Describe any potential hazards associated with the resources and methods of work.			
5	Prevent the risk of damage to occupational resources and surrounding environment when moving, handling and/or storing resources.	5.1	Protect occupational resources and their surrounding area from damage in accordance with safe working practices and organisational procedures.			
		5.2	Dispose of waste and packaging in accordance with legislation.			
		5.3	Maintain a clean work space when moving, handling or storing resources.			
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
6	Complete the work within the allocated time when moving, handling and/or storing resources.	6.1	Demonstrate completion of the work within the allocated time.			
		6.2	State the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• progress charts, timetables and estimated times</li> <li>• organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			
7	Comply with the given occupational resource information to move, handle and/or store resources to the required guidance.	7.1	Demonstrate the following work skills when moving, handling and/or storing occupational resources: <ul style="list-style-type: none"> <li>• moving, positioning, storing, securing and/or using lifting aids and kinetic lifting techniques.</li> </ul>			
		7.2	Move, handle and/or store occupational resources to meet product information and organisational requirements relating to three of the following: <ul style="list-style-type: none"> <li>• sheet material</li> <li>• loose material</li> <li>• bagged or wrapped material</li> <li>• fragile material</li> <li>• tools and equipment</li> <li>• components</li> <li>• liquids.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		7.3 Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them when moving, handling and/or storing occupational resources.			
		7.4 Describe the needs of other occupations when moving, handling and/or storing resources.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*



## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of crawler cranes to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of crawler cranes to lift and transfer loads.</li> </ul>			
2	Organise with others the sequence and operation in which lifting operations using crawler cranes 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	Describe how to organise resources prior to and during lifting operations with crawler cranes.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads using crawler cranes.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out lifting operations using crawler cranes.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during lifting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out lifting operations using crawler cranes in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>safe use and storage of lifting accessories</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to crawler crane use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using crawler cranes.	5.1	Request and select resources associated with crawler cranes in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and method of work.		
		5.6	Describe how to identify weight, bearing, pressure, quantity, length and area associated with the method/procedures to carry out lifting operations with crawler cranes.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift, transfer and place loads using crawler cranes to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using crawler cranes: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up and operate crawler cranes above 10 tonnes to lift, transfer and place a variety of loads to given working instructions.			
		8.4	Shut down and secure crawler cranes.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the crane for the lifting and transferring operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify characteristics, type, weight and position of loads for lifting and transferring</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>● recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>● secure and balance loads for lifting</li> <li>● lift, remove and transfer loads</li> <li>● position, place and set down loads</li> <li>● confirm load stability, security and release</li> <li>● attach and remove guide ropes and aids</li> <li>● be on the public highway</li> <li>● shut down and secure the crane</li> <li>● use hand tools and ancillary equipment</li> <li>● use, handle and store lifting accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and lifting and transferring loads.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to lift and transfer loads.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 53: Preparing and operating tower cranes to lift and transfer loads in the workplace

**Unit reference number:** H/506/4602

**Level:** 2

**Credit value:** 80

**Guided learning hours:** 267

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## Unit summary

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

## Unit 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 tower cranes to lift and transfer loads 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:

- tower cranes – trolley jib
- tower cranes – luffing jib.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of tower cranes to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of tower cranes to lift and transfer loads.</li> </ul>			
2	Organise with others the sequence and operation in which lifting operations using tower cranes 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	Describe how to organise resources prior to and during lifting operations with tower cranes.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads using tower cranes.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out lifting operations using tower cranes.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during lifting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out lifting operations using tower cranes in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>safe use and storage of lifting accessories</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to tower crane use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using tower cranes.	5.1	Request and select resources associated with tower cranes in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and method of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out lifting operations with tower cranes.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift, transfer and place loads using tower cranes to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using tower cranes: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up and operate tower cranes to lift, transfer and place a variety of loads to given working instructions.			
		8.4	Shut down and secure tower cranes.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the crane for the lifting and transferring operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify characteristics, type, weight and position of loads for lifting and transferring</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• secure and balance loads for lifting</li> <li>• lift, remove and transfer loads</li> <li>• position, place and set down loads</li> <li>• confirm load stability, security and release</li> <li>• attach and remove guide ropes and aids</li> <li>• be on the public highway</li> <li>• shut down and secure the crane</li> <li>• use hand tools and ancillary equipment</li> <li>• use, handle and store lifting accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and lifting and transferring loads.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to lift and transfer loads.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 54: Preparing and operating mobile cranes to lift and transfer loads in the workplace

**Unit reference number:** K/506/4603

**Level:** 2

**Credit value:** 95

**Guided learning hours:** 317

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## Unit summary

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

Unit 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 mobile cranes to lift and transfer loads 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 cranes – block duties
- mobile cranes – pick and carry duties
- mobile cranes – all duties.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of mobile cranes to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of mobile cranes to lift and transfer loads.</li> </ul>			
2	Organise with others the sequence and operation in which lifting operations using mobile cranes 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	Describe how to organise resources prior to and during lifting operations with mobile cranes.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads using mobile cranes.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out lifting operations using mobile cranes.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during lifting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out lifting operations using mobile cranes in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>safe use and storage of lifting accessories</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to mobile crane use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using mobile cranes.	5.1	Request and select resources associated with mobile cranes in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and method of work.		
		5.6	Describe how to identify weight, bearing, pressure, quantity, length and area associated with the method/procedures to carry out lifting operations with mobile cranes.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift, transfer and place loads using mobile cranes to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using mobile cranes: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up and operate mobile cranes to lift, transfer and place a variety of loads to given working instructions.			
		8.4	Shut down and secure mobile cranes.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the crane for the lifting and transferring operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify characteristics, type, weight and position of loads for lifting and transferring</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• secure and balance loads for lifting</li> <li>• lift, remove and transfer loads</li> <li>• position, place and set down loads</li> <li>• confirm load stability, security and release</li> <li>• attach and remove guide ropes and aids</li> <li>• be on the public highway</li> <li>• shut down and secure the crane</li> <li>• use hand tools and ancillary equipment</li> <li>• use, handle and store lifting accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and lifting and transferring loads.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to lift and transfer loads.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 55: Preparing and operating crawler-tractor side booms to lift and transfer loads in the workplace**

**Unit reference number:** L/506/4612

**Level:** 2

**Credit value:** 50

**Guided learning hours:** 167

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## **Unit summary**

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

## **Unit 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 crawler-tractor side booms to lift and transfer loads to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of side booms to lift, transfer and place loads.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of crawler-tractor side booms to lift and transfer loads.</li> </ul>			
2	Know how to comply with relevant legislation and official guidance when lifting and transferring loads using side booms.	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	Describe how to organise resources prior to and during lifting operations with side booms.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Maintain safe and healthy working practices when preparing for and carrying out lifting operations using side booms.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using side booms.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during lifting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out lifting operations using side booms in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>safe use and storage of lifting accessories</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to side boom use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	5.1	Request and select resources associated with crawler-tractor side booms in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and lifting accessories</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and method of work.		
		5.6	Describe how to identify weight, bearing, pressure, quantity, length and area associated with the method/procedures to carry out lifting operations with side booms.		
6	Complete the work within the allocated time when preparing to and lifting and transferring loads.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Comply with the given contract information to lift, transfer and place loads using side booms to the required specification.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of progress charts, timetables and estimated times</li> <li>• organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lift, transfer and place loads using side booms to the required specification.	8.1	Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using side booms: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up and operate crawler-tractor side booms to lift, transfer and place a variety of loads and/or pipelines to given working instructions.			
		8.4	Shut down and secure side booms.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the side boom for the lifting and transferring operation</li> <li>identify valid certification for maintenance, inspection and thorough examination</li> <li>lift and transfer people</li> <li>carry out function checks for lifting and transferring loads</li> <li>prepare, set up and reconfigure for various loads and locations</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify characteristics, type, weight and position of loads for lifting and transferring</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• secure and balance loads for lifting</li> <li>• lift, remove and transfer loads</li> <li>• position, place and set down loads</li> <li>• confirm load stability, security and release</li> <li>• attach and remove guide ropes and aids</li> <li>• be on the public highway</li> <li>• shut down and secure the side booms</li> <li>• use hand tools and ancillary equipment</li> <li>• use, handle and store lifting accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and lifting and transferring loads.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to lift and transfer loads.			

Learner name: \_\_\_\_\_

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Assessor signature: \_\_\_\_\_

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Internal verifier signature: \_\_\_\_\_

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*(if sampled)*



## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of draglines for extracting operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of draglines for extraction work.</li> </ul>			
2	Organise with others the sequence and operation in which extracting operations using draglines 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	Describe how to organise resources prior to and during extracting operations using draglines.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out extracting operations using draglines.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out extracting operations using draglines.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during extracting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out extracting operations using draglines in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to dragline use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out extracting operations using draglines.	5.1	Request and select resources associated with draglines in relation to consumables, materials, attachments, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and extraction aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, pressure, quantity, length and area associated with the method/procedures to carry out extracting operations using draglines.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and extracting materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and extracting materials.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to extract materials using draglines to the required specification.	8.1	Demonstrate the following work skills when preparing for and extracting loose materials, face, ground or commodities using draglines: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, extracting, forming, removing and loading.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, position, set up and operate draglines to given working instructions <ul style="list-style-type: none"> <li>extract ground, face, loose materials or commodities</li> <li>load and/or stockpile loose materials or commodities.</li> </ul>			
		8.4	Shut down and secure draglines.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the dragline used for the extraction operation</li> <li>carry out function checks for the extraction operation</li> <li>prepare, set up and adjust for operational requirements</li> <li>identify the area to be extracted</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify geological, environmental and material changes and report</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• extract, remove and load materials and commodities safely and securely</li> <li>• form and remove stockpiles</li> <li>• be on the public highway</li> <li>• shut down and secure dragline</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
		8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out extracting operations.			
		8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to extract materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 57: Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace**

**Unit reference number: T/506/4619**

**Level: 2**

**Credit value: 80**

**Guided learning hours: 267**

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating 180 degree excavators to extract and excavate materials in the workplace within the relevant sector of industry.

## **Unit 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 Construction Skills 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 180 degree excavators to extract and excavate materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of 180 degree excavators for extracting and excavating operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of 180 degree excavators for extraction and excavation work.</li> </ul>			
2	Organise with others the sequence and operation in which extracting and excavating operations using 180 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	Describe how to organise resources prior to and during extracting and excavating operations using 180 degree excavators.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out extracting and excavating operations using 180 degree excavators.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out extracting and excavating operations using 180 degree excavators.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during extracting and excavating operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out extracting and excavating operations using 180 degree excavators in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to 180 degree excavator use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
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.	5.1	Request and select resources associated with 180 degree excavators in relation to consumables, materials, attachments, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and extraction/excavation aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out extracting and excavating operations using 180 degree excavators.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and extracting and excavating materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and extracting and excavating materials.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to extract materials using 180 degree excavators to the required specification.	8.1	Demonstrate the following work skills when preparing for and extracting and excavating loose materials and ground using 180 degree excavators: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, extracting, excavating, forming, removing and loading.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, position, set up and operate 180 degree excavators to given working instructions <ul style="list-style-type: none"> <li>extract loose materials and/or different types of ground</li> <li>load and/or stockpile loose materials and ground</li> <li>excavate different types of ground.</li> </ul>			
		8.4	Shut down and secure 180 degree excavators.			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>● identify the characteristics of the 180 degree excavator used for the extraction and excavation operation</li> <li>● carry out function checks for the extraction and excavation operation</li> <li>● prepare, set up and adjust for operational requirements</li> <li>● identify the area to be extracted/excavated</li> <li>● carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>● identify geological, environmental and material changes and report</li> <li>● check to avoid damage to structures and utilities service apparatus</li> </ul>			
	<p>8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>● recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>● extract, excavate, remove and load materials safely and securely</li> <li>● form stockpiles</li> <li>● be on the public highway</li> <li>● shut down and secure 180 degree excavator</li> <li>● use hand tools, ancillary equipment and accessories.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out extracting and excavating operations.			
		8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to extract and excavate materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 58: Preparing and operating tracked loading shovels to extract ground and loose materials in the workplace**

**Unit reference number:** A/506/4623

**Level:** 2

**Credit value:** 80

**Guided learning hours:** 267

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## **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.

## **Unit 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 Construction Skills 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.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of tracked loading shovels for extracting operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of tracked loading shovels for extraction work.</li> </ul>			
2	Organise with others the sequence and operation in which extracting operations using tracked loading shovels 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	Describe how to organise resources prior to and during extracting operations using tracked loading shovels.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out extracting operations using tracked loading shovels.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out extracting operations using tracked loading shovels.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during extracting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out extracting operations using tracked loading shovels in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to tracked loading shovel use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out extracting operations using tracked loading shovels.	5.1	Request and select resources associated with tracked loading shovels in relation to consumables, materials, attachments, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and extraction aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, pressure, quantity, length and area associated with the method/procedures to carry out extracting operations using tracked loading shovels.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and extracting materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and extracting materials.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to extract materials using tracked loading shovels to the required specification.	8.1	Demonstrate the following work skills when preparing for and extracting loose materials and ground using tracked loading shovels: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, extracting, forming, removing and loading.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, position, set up and operate tracked loading shovels to given working instructions <ul style="list-style-type: none"> <li>extract ground, face and/or loose materials</li> <li>load and/or stockpile loose materials.</li> </ul>			
		8.4	Shut down and secure tracked loading shovels.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the tracked loading shovel used for the extraction operation</li> <li>carry out function checks for the extraction operation</li> <li>prepare, set up and adjust for operational requirements</li> <li>identify the area to be extracted</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify geological, environmental and material changes and report</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• extract, remove and load materials safely and securely</li> <li>• form stockpiles</li> <li>• be on the public highway</li> <li>• shut down and secure the tracked loading shovel</li> <li>• use hand tools, ancillary equipment and accessories</li> </ul>			
		8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out extracting operations.			
		8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to extract materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

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Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# Unit 59: Preparing and operating motorised scrapers to extract, transport and distribute materials in the workplace

**Unit reference number:** J/506/4625

**Level:** 2

**Credit value:** 80

**Guided learning hours:** 267

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## Unit summary

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

## Unit 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 motorised scrapers to extract, transport and distribute materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of motorised scrapers for extraction and distribution operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of motorised scrapers for extraction and distribution work.</li> </ul>			
2	Organise with others the sequence and operation in which extraction and distribution operations using motorised scrapers 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	Describe how to organise resources prior to and during extraction and distribution operations using motorised scrapers.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out extraction and distribution operations using motorised scrapers.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out extraction and distribution operations using motorised scrapers.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during extraction and distribution operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out extraction and distribution operations using motorised scrapers in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to motorised scraper use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out extraction and distribution operations using motorised scrapers.	5.1	Request and select resources associated with motorised scrapers in relation to consumables, materials, attachments, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and extraction/distribution aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out extraction and distribution operations using motorised scrapers.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and extracting and distributing materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and extracting and distributing materials.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of progress charts, timetables and estimated times</li> <li>• organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to extract and distribute materials using motorised scrapers to the required specification.	8.1	Demonstrate the following work skills when preparing for and extracting and distributing loose materials using motorised scrapers: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, extracting, distributing, forming, removing and loading.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, position, set up and operate motorised scrapers to given working instructions <ul style="list-style-type: none"> <li>extract, load and transport different types of ground</li> <li>lay, distribute and/or stockpile extracted materials.</li> </ul>			
		8.4	Shut down and secure motorised scrapers.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the motorised scraper used for the extraction and distribution operation</li> <li>carry out function checks for the extraction and distribution operation</li> <li>prepare, set up and adjust for operational requirements</li> <li>identify the area to be extracted</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify geological, environmental and material changes and report</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• extract, load, transport and lay materials safely and securely</li> <li>• form stockpiles</li> <li>• be on the public highway</li> <li>• shut down and secure the motorised scraper</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
		8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out extraction and distribution operations.			
		8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to extract and distribute materials.			

Learner name: \_\_\_\_\_

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Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*



## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of trenchers for extracting operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of trenchers for extraction work.</li> </ul>			
2	Organise with others the sequence and operation in which extracting operations using trenchers 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	Describe how to organise resources prior to and during extracting operations using trenchers.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out extracting operations using trenchers.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out extracting operations using trenchers.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during extracting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out extracting operations using trenchers in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to trencher use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out extracting operations using trenchers.	5.1	Request and select resources associated with trenchers in relation to consumables, materials, attachments, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and extraction aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out extracting operations using trenchers.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and extracting materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and extracting materials.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to extract materials using trenchers to the required specification.	8.1	Demonstrate the following work skills when preparing for and extracting loose materials, face or ground using trenchers: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, extracting, forming, removing and loading.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, position, set up and operate trenchers to given working instructions <ul style="list-style-type: none"> <li>extract ground, face or loose materials</li> <li>stockpile loose materials.</li> </ul>			
		8.4	Shut down and secure trenchers.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the trenchers used for the extraction operation</li> <li>carry out function checks for the extraction operation</li> <li>prepare, set up and adjust for operational requirements</li> <li>identify the area to be extracted</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• identify geological, environmental and material changes and report</li> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• extract, remove and load materials safely and securely</li> <li>• form stockpiles</li> <li>• be on the public highway</li> <li>• shut down and secure trenchers</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out extracting operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to extract materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 61:                    Preparing and operating 360 degree excavators to extract ground, face and/or loose materials in the workplace**

**Unit reference number:** D/506/4629

**Level:** 2

**Credit value:** 80

**Guided learning hours:** 267

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## **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 extract materials in the workplace within the relevant sector of industry.

## **Unit 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 Construction Skills 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 extract 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:

- 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.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of 360 degree excavators for extracting operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of 360 degree excavators for extraction work.</li> </ul>			
2	Organise with others the sequence and operation in which extracting 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	Describe how to organise resources prior to and during extracting operations using 360 degree excavators.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out extracting operations using 360 degree excavators.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out extracting operations using 360 degree excavators.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during extracting operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out extracting operations using 360 degree excavators in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to 360 degree excavators use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out extracting operations using 360 degree excavators.	5.1	Request and select resources associated with 360 degree excavators in relation to consumables, materials, attachments, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and extraction aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out extracting operations using 360 degree excavators.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and extracting materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and extracting materials.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to extract materials using 360 degree excavators to the required specification.	8.1	Demonstrate the following work skills when preparing for and extracting ground and/or loose materials using 360 degree excavators: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, extracting, forming, removing and loading.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, position, set up and operate 360 degree excavators to given working instructions <ul style="list-style-type: none"> <li>extract from a face, loose materials and/or ground</li> <li>load and/or stockpile extracted loose materials.</li> </ul>			
		8.4	Shut down and secure 360 degree excavators.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the 360 degree excavator used for the extraction operation</li> <li>carry out function checks for the extraction operation</li> <li>prepare, set up and adjust for operational requirements</li> <li>identify the area to be extracted</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify geological, environmental and material changes and report</li> <li>check to avoid damage to structures and utilities service apparatus</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>● recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>● extract, remove and load materials and commodities safely and securely</li> <li>● form stockpiles</li> <li>● be on the public highway</li> <li>● shut down and secure the 360 degree excavator</li> <li>● use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out extracting operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to extract materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 62: Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace**

**Unit reference number: R/506/4630**

**Level: 2**

**Credit value: 80**

**Guided learning hours: 267**

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating crawler/tractor dozers for excavating/forming operations in the workplace within the relevant sector of industry.

## **Unit 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 crawler/tractor dozers for excavating/forming operations to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of crawler tractor dozers for dozer operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of crawler tractor dozers for dozer operations.</li> </ul>			
2	Organise with others the sequence and operation in which dozer operations using crawler tractor dozers 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	Describe how to organise resources prior to and during dozer operations using crawler tractor dozers.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out dozer operations using crawler tractor dozers.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out dozer operations using crawler tractor dozers.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during dozer operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out dozer operations using crawler tractor dozers in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to crawler tractor dozer use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out dozer operations using crawler tractor dozers.	5.1	Request and select resources associated with crawler tractor dozers in relation to consumables, materials, attachments, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and plant or machinery aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to identify weight, bearing pressure, quantity, length and area associated with the method/procedures to carry out dozer operations using crawler tractor dozers.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and carrying out dozer operations.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and carrying out dozer operations.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to carry out dozer operations using crawler tractor dozers to the required specification.	8.1	Demonstrate the following work skills when preparing for and extracting, excavating, laying and distributing materials using crawler tractor dozers: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, measuring, extracting, excavating, laying, distributing, compacting, forming and removing.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set up, position and operate crawler tractor dozers to given working instructions <ul style="list-style-type: none"> <li>extract, excavate and move different types of materials</li> <li>lay or distribute materials</li> <li>form and/or stockpile materials.</li> </ul>			
		8.4	Shut down and secure crawler tractor dozers.			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>● identify the characteristics of the crawler tractor dozer used for the dozer operation</li> <li>● carry out function checks for the dozer operation</li> <li>● prepare, set up and adjust for operational requirements</li> <li>● identify the area of work</li> <li>● carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>● identify geological, environmental and material changes and report</li> <li>● check to avoid damage to structures and utilities service apparatus</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>● recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>● extract, excavate and move materials safely and securely</li> <li>● form and remove stockpiles</li> <li>● form embankments, bunds and cuttings</li> <li>● conduct ripper operations</li> <li>● be on the public highway</li> <li>● shut down and secure crawler tractor dozer</li> <li>● use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out dozer operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to carry out dozer operations.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 63:                    Preparing and operating draglines to excavate ground materials in the workplace**

**Unit reference number: Y/506/4631**

**Level: 2**

**Credit value: 60**

**Guided learning hours: 200**

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## **Unit summary**

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

## **Unit 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 draglines to excavate materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of draglines to carry out excavating operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of draglines for excavation work.</li> </ul>			
2	Organise with others the sequence and operation in which excavating operations using draglines 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	Describe how to organise resources prior to and during excavating operations using draglines.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out excavating operations using draglines.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out excavating operations using draglines.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during excavating operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out excavating operations using draglines in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to dragline use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out excavating operations using draglines.	5.1	Request and select resources associated with draglines in relation to consumables, materials, attachments, tools and ancillary equipment.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and excavation aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify quantity, weight, length and area associated with the method/procedures to carry out excavating operations using draglines.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and excavating materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and excavating materials.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date	
8	Comply with the given contract information to excavate materials using draglines to the required specification.	8.1	Demonstrate the following work skills when preparing for and excavating ground using draglines: <ul style="list-style-type: none"> <li>● checking, adjusting, communicating, operating, manoeuvring, positioning, excavating, measuring and removing.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, position, set up and operate draglines to given working instructions to: <ul style="list-style-type: none"> <li>● excavate ground</li> <li>● load or stockpile excavated ground and/or loose materials.</li> </ul>			
		8.4	Shut down and secure draglines.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>● identify the characteristics of the dragline used for excavating operations</li> <li>● carry out function checks for excavation work</li> <li>● identify the area to be excavated</li> <li>● prepare, set up and adjust for operational requirements</li> <li>● carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>● identify geological, environmental and material changes and report</li> <li>● check to avoid damage to structures and utilities service apparatus</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• excavate accurately to line and level</li> <li>• form stockpiles</li> <li>• use equipment to gauge and measure</li> <li>• be on the public highway</li> <li>• excavate, remove and load materials safely and securely</li> <li>• shut down and secure the dragline</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and carrying out excavating operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to excavate materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 64: Preparing and operating 360 degree excavators to excavate ground in the workplace**

**Unit reference number: H/506/4728**

**Level: 2**

**Credit value: 80**

**Guided learning hours: 267**

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## **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.

## **Unit 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.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of 360 degree excavators to carry out excavating operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of 360 degree excavators for excavation work.</li> </ul>			
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	Describe how to organise resources prior to and during excavating operations using 360 degree excavators.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out excavating operations using 360 degree excavators.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out excavating operations using 360 degree excavators.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during excavating operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out excavating operations using 360 degree excavators in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to 360 degree excavator use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
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	Request and select resources associated with 360 degree excavators in relation to consumables, materials, attachments, tools and ancillary equipment.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and excavation aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to identify quantity, weight, length and area associated with the method/procedures to carry out excavating operations using 360 degree excavators.		
6	Minimise the risk of damage to the work and surrounding area when preparing to and excavating materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
7	Complete the work within the allocated time when preparing to and excavating materials.	7.1	Demonstrate completion of the work within the allocated time.		
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
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"> <li>● checking, adjusting, communicating, operating, manoeuvring, positioning, excavating, measuring and removing.</li> </ul>			
	8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
	8.3	Prepare, position, set up and operate 360 degree excavators to given working instructions to: <ul style="list-style-type: none"> <li>● excavate a variety of ground</li> <li>● load or stockpile excavated loose materials.</li> </ul>			
	8.4	Shut down and secure 360 degree excavators.			
	8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>● identify the characteristics of the 360 degree excavator used for excavating operations</li> <li>● carry out function checks for excavation work</li> <li>● identify the area to be excavated</li> <li>● prepare, set up and adjust for operational requirements</li> <li>● carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>● identify geological, environmental and material changes and report</li> <li>● check to avoid damage to structures and utilities service apparatus</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• excavate accurately to line and level</li> <li>• form stockpiles</li> <li>• use equipment to gauge and measure</li> <li>• be on the public highway</li> <li>• excavate, remove and load materials safely and securely</li> <li>• shut down and secure the 360 degree excavator</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
		8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and carrying out excavating operations.			
		8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to excavate materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

(if sampled)

# Unit 65: Preparing and operating trenchers to excavate ground in the workplace

**Unit reference number:** D/506/4632

**Level:** 2

**Credit value:** 50

**Guided learning hours:** 167

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## Unit summary

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

## Unit 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 trenchers to excavate materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of trenchers to carry out excavating operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of trenchers for excavation work.</li> </ul>			
2	Organise with others the sequence and operation in which excavating operations using trenchers 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	Describe how to organise resources prior to and during excavating operations using trenchers.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out excavating operations using trenchers.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out excavating operations using trenchers.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during excavating operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out excavating operations using trenchers in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to trencher use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out excavating operations using trenchers.	5.1	Request and select resources associated with trenchers in relation to consumables, materials, attachments, tools and ancillary equipment.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and excavation aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify quantity, weight, length and area associated with the method/procedures to carry out excavating operations using trenchers.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and excavating materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and excavating materials.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to excavate materials using trenchers to the required specification.	8.1	Demonstrate the following work skills when preparing for and excavating ground using trenchers: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, excavating, measuring and removing.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, position, set up and operate trenchers to excavate a variety of ground and form trenches to given working instructions.			
		8.4	Shut down and secure trenchers.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the trenchers used for excavating operations</li> <li>carry out function checks for excavation work</li> <li>identify the area to be excavated</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify geological, environmental and material changes and report</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• excavate accurately to line and level</li> <li>• use equipment to gauge and measure</li> <li>• be on the public highway</li> <li>• excavate materials safely and securely</li> <li>• shut down and secure trenchers</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and carrying out excavating operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to excavate materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*



## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of tracked loading shovels to carry out excavating operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of tracked loading shovels for excavation work.</li> </ul>			
2	Organise with others the sequence and operation in which excavating operations using tracked loading shovels 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	Describe how to organise resources prior to and during excavating operations using tracked loading shovels.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out excavating operations using tracked loading shovels.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out excavating operations using tracked loading shovels.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during excavating operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out excavating operations using tracked loading shovels in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to tracked loading shovel use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out excavating operations using tracked loading shovels.	5.1	Request and select resources associated with tracked loading shovels in relation to consumables, materials, attachments, tools and ancillary equipment.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and excavation aids</li> <li>• hand tools, ancillary equipment and accessories</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify quantity, weight, length and area associated with the method/procedures to carry out excavating operations using tracked loading shovels.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and excavating materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and excavating materials.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to excavate materials using tracked loading shovels to the required specification.	8.1	Demonstrate the following work skills when preparing for and excavating ground using tracked loading shovels: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, operating, manoeuvring, positioning, excavating, measuring and removing.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, position, set up and operate tracked loading shovels to given working instructions to: <ul style="list-style-type: none"> <li>excavate ground and/or loose materials</li> <li>load or stockpile excavated ground and/or loose materials.</li> </ul>			
		8.4	Shut down and secure tracked loading shovels.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the tracked loading shovel used for excavating operations</li> <li>carry out function checks for excavation work</li> <li>identify the area to be excavated</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>identify geological, environmental and material changes and report</li> <li>check to avoid damage to structures and utilities service apparatus</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• excavate accurately to line and level</li> <li>• form stockpiles</li> <li>• use equipment to gauge and measure</li> <li>• be on the public highway</li> <li>• excavate, remove and load materials safely and securely</li> <li>• shut down and secure tracked loading shovels</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and carrying out excavating operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to excavate materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

(if sampled)



## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of graders to carry out forming operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of graders for formation work.</li> </ul>			
2	Organise with others the sequence and operation in which forming operations using graders 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	Describe how to organise resources prior to and during forming operations using graders.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out forming operations using graders.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out forming operations using graders.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during forming operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out forming operations using graders in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to grader use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out forming operations using graders.	5.1	Request and select resources associated with graders in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and forming aids</li> <li>• hand tools, ancillary equipment and/or accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out forming operations using graders.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and forming ground using graders.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and forming ground using graders.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to form ground and materials using graders to the required specification.	8.1	Demonstrate the following work skills when preparing for and forming loose materials and/or ground using graders: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, constructing and forming.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set-up, position and operate graders to form and shape loose materials and/or ground to given working instructions.			
		8.4	Shut down and secure graders.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the grader used for formation operations</li> <li>carry out function checks for the formation operation</li> <li>identify the area of the formation work</li> <li>identify geological, environmental and material changes and report</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• form and shape materials safely and securely</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• complete construction and formation work</li> <li>• be on the public highway</li> <li>• shut down and secure the graders</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and carrying out forming operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and/or accessories used to form materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*



## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of formwork rigs to carry out constructing and forming operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of formwork rigs for construction and formation work.</li> </ul>			
2	Organise with others the sequence and operation in which constructing and forming operations using formwork rigs 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	Describe how to organise resources prior to and during formwork rig operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when preparing and operating formwork rigs to carry out constructing and forming operations.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for plant, tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing and operating formwork rigs to construct and form.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during formwork rig operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when preparing and operating formwork rigs to carry out constructing and forming operations in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to preparing and operating formwork rigs, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• local exhaust ventilation (LEV)</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and emergencies relating to occupational activities.			
5	Request and select the required quantity and quality of resources to prepare and operate formwork rigs to carry out constructing and forming operations	5.1	Request and select resources associated with formwork rigs in relation to consumables, materials, tools, ancillary equipment and accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and aids for construction or formation work</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.		
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to prepare and operate the formwork rig to construct and form.		
6	Minimise the risk of damage to the work and surrounding area when preparing and operating formwork rigs to construct and form	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.		
		6.2	Prevent damage and maintain a clean work space.		
		6.3	Dispose of waste in accordance with current legislation.		
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Complete the work within the allocated time when preparing and operating formwork rigs to carry out constructing and forming operations.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			
8	Comply with the given contract information to prepare and operate formwork rigs to construct and form to the required specification.	8.1	Demonstrate the following work skills when preparing and operating formwork rigs to construct and form: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, constructing and forming.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare, set-up, position and operate formwork rigs (slipform, climbing, jumping) to construct and form to given working instructions.			
		8.4	Shut down and secure formwork rigs.			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• identify the characteristics of the formwork rigs used for construction and formation operations</li> <li>• carry out function checks for the construction and formation operation</li> <li>• identify the area of the construction and formation work</li> <li>• identify geological, environmental and material changes and report</li> <li>• prepare, set-up and adjust for operational requirements</li> <li>• carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> </ul>			
	<p>8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• construct and form using formwork rigs safely and securely</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• complete construction and formation work</li> <li>• travel on the public highway</li> <li>• shut down and secure the formwork rig</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing and operating formwork rigs to carry out constructing and forming operations.			
		8.8 Describe how to maintain the plant and machinery, hand tools, ancillary equipment and/or accessories used to carry out formwork rig operations.			

Learner name: \_\_\_\_\_

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Learner signature: \_\_\_\_\_

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Assessor signature: \_\_\_\_\_

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Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*



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.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of concrete pumps to carry out pumping and discharging operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of truck-mounted boom concrete pumps.</li> </ul>			
2	Organise with others the sequence and operation in which pumping and discharging operations using concrete pumps 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	Describe how to organise resources prior to and during concrete pumping operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out pumping and discharging operations using concrete pumps.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out pumping operations using concrete pumps.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during concrete pumping operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out pumping operations using truck-mounted boom concrete pumps in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to concrete pump use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out pumping operations using concrete pumps.	5.1	Request and select resources associated with concrete pumps in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments and load coverings</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, pressure, length and area associated with the method/procedures to carry out concrete pumping operations.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and pumping materials using concrete pumps.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and pumping and discharging materials using concrete pumps.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>• types of progress charts, timetables and estimated times</li> <li>• organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to receive, pump and discharge materials using concrete pumps to the required specification.	8.1	Demonstrate the following work skills when preparing for and pumping and discharging materials using concrete pumps: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, receiving, depositing, pumping, discharging and cleaning.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare to, position, set up and operate truck-mounted boom concrete pumps to receive, pump and discharge materials, at various locations, to given working instructions.			
		8.4	Shut down and secure concrete pumps.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the concrete pump used for pumping and discharging work</li> <li>carry out function checks to receive, pump and discharge materials</li> <li>identify characteristics, type and volume of loads to receive, pump and discharge</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>● recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>● identify the area for pumping</li> <li>● check to avoid damage to structures and utilities service apparatus</li> <li>● receive, and pump and discharge materials safely and securely</li> <li>● be on the public highway</li> <li>● shut down and secure the concrete pump</li> <li>● use hand tools, ancillary equipment and accessories.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out pumping and discharging operations.			
	8.8 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used pumping and discharging operations.			

Learner name: \_\_\_\_\_

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Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 70: Preparing and operating soil stabilisers to lay and distribute materials in the workplace**

**Unit reference number: K/506/4651**

**Level: 2**

**Credit value: 40**

**Guided learning hours: 133**

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## **Unit summary**

The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in preparing and operating soil stabilisers to lay and distribute materials in the workplace within the relevant sector of industry.

## **Unit 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 soil stabilisers to lay and distribute materials to be effective and reliable when confirming a learner's competence.

Workplace evidence of skills cannot be simulated.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of soil stabilisers to carry out laying and distribution operations.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, and current regulations governing the operation of soil stabilisers for laying and distribution work.</li> </ul>			
2	Organise with others the sequence and operation in which laying and distribution operations using soil stabilisers 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	Describe how to organise resources prior to and during laying and distribution operations using soil stabilisers.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out laying and distribution operations using soil stabilisers.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing for and carrying out laying and distribution operations using soil stabilisers.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during laying and distribution operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out laying and distribution operations using soil stabilisers in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to soil stabiliser use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to prepare for and carry out laying and distribution operations using soil stabilisers.	5.1	Request and select resources associated with soil stabilisers in relation to consumables, materials, tools, ancillary equipment and/or accessories.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• consumables, lubricants and fuels</li> <li>• attachments, laying and distribution aids</li> <li>• hand tools, ancillary equipment and accessories.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, quantity, length and area associated with the method/procedures to carry out laying and distribution operations using soil stabilisers.			
6	Minimise the risk of damage to the work and surrounding area when preparing to and laying and distributing materials.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and laying and distributing materials.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to lay and distribute materials using soil stabilisers to the required specification.	8.1	Demonstrate the following work skills when preparing for and laying and distributing materials using soil stabilisers: <ul style="list-style-type: none"> <li>checking, adjusting, communicating, manoeuvring, positioning, mixing, laying, distributing and compacting.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment and/or accessories.			
		8.3	Prepare to, position, set up and operate soil stabilisers to mix, lay and distribute a variety of materials, in a variety of locations, to given working instructions.			
		8.4	Shut down and secure soil stabilisers.			
		8.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>identify the characteristics of the soil stabiliser used for laying and distribution operations</li> <li>carry out function checks for the laying and distribution work</li> <li>identify the area for the laying and distribution work</li> <li>prepare, set up and adjust for operational requirements</li> <li>carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area</li> <li>confirm material characteristics</li> <li>mix, lay and distribute materials in laying patterns</li> <li>identify geological, environmental and material changes and report</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• check to avoid damage to structures and utilities service apparatus</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• complete laying and distribution work</li> <li>• be on the public highway</li> <li>• shut down and secure soil stabiliser</li> <li>• use hand tools, ancillary equipment and accessories.</li> </ul>			
		8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out laying and distribution operations.			
		8.8 Describe how to maintain the plant and machinery, hand tools and ancillary equipment used to lay and distribute materials.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*



## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to preparing and operating plant or machinery from a floating vessel.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, lift plans, risk assessments, manufacturers' information and current regulations governing operations from, and with, a floating vessel.</li> </ul>			
2	Organise with others the sequence and operation in which plant or machinery operations from a floating vessel 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	Describe how to organise resources prior to and during floating vessel operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when carrying out plant or machinery operations from a floating vessel.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
		3.4	Describe the types of fire extinguishers available when carrying out plant or machinery operations from a floating vessel, and explain how and when they are used.			
4	Maintain safe and healthy working practices when preparing for and carrying out plant or machinery operations from a floating vessel.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during floating vessel operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out plant or machinery operations from a floating vessel in relation to the following: <ul style="list-style-type: none"> <li>safe use and storage of plant or machinery on floating vessels</li> <li>safe use and storage of tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	4.3 Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to floating vessel operations, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
	4.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
	4.5 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
	4.6 Demonstrate the safe use of a fire extinguisher relevant to a typical fire associated with carrying out plant or machinery operations from a floating vessel as relevant to the operation.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Request and select the required quantity and quality of resources to prepare for and carry out plant or machinery operations from a floating vessel.	5.1	Request and select resources associated with the work in relation to consumables, materials, plant, machinery, attachments, tools and ancillary equipment.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>floating vessels</li> <li>consumables, lubricants and fuels</li> <li>attachments</li> <li>hand tools, accessories and ancillary equipment.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, ballast, quantity, length and area associated with the method/procedure to carry out work from a floating vessel.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Minimise the risk of damage to the work and surrounding area when carrying out plant or machinery operations from a floating vessel.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing to and carrying out work from a floating vessel.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			
8	Comply with the given contract information to carry out plant or machinery operations from a floating vessel to the required specification.	8.1	Demonstrate the following work skills when preparing for and operating plant or machinery from a floating vessel: <ul style="list-style-type: none"> <li>checking, setting up, adjusting, communicating, operating, manoeuvring, controlling, positioning and sea fastening.</li> </ul>			
		8.2	Use and maintain hand tools, ancillary equipment, accessories and lifting accessories.			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.3 Prepare to and carry out plant or machinery operations from a floating vessel to given working instructions, protocols and Codes of Practice, relating to the movement and operation for six or more of the following activities: <ul style="list-style-type: none"> <li>• lift</li> <li>• transfer</li> <li>• extract</li> <li>• excavate</li> <li>• construct</li> <li>• form</li> <li>• receive</li> <li>• access</li> <li>• distribute</li> <li>• demolish</li> <li>• process.</li> </ul>			
	8.4 Shut down and secure the plant or machinery attached to the floating vessel.			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• mobilise and demobilise plant for floating vessel operations</li> <li>• identify the restrictions on plant and machinery when operating on a floating vessel</li> <li>• counter the effects of floating vessel movement during plant and machinery operations</li> <li>• carry out function checks for the control of plant and machinery on the floating vessel</li> <li>• confirm the area of work for the operation</li> <li>• recognise operational limitations and de-ratings</li> <li>• confirm safety and security requirements</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• synchronise movements with other plant and machinery on a floating vessel</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• prepare, manoeuvre, position, sea fasten and set up plant and machinery for operations</li> <li>• carry out plant or machinery operations safely and securely</li> <li>• stop, shut down operations and secure plant and machinery</li> <li>• use hand tools and equipment.</li> </ul>			
	8.7 Describe the needs of other occupations and how to effectively communicate within a team when preparing to and carrying out plant or machinery operations from a floating vessel			
	8.8 Describe how to maintain the hand tools plant, machinery and ancillary equipment used to carry out operations from a floating vessel.			

Learner name: \_\_\_\_\_

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Learner signature: \_\_\_\_\_

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Assessor signature: \_\_\_\_\_

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Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

(if sampled)

# Unit 72: Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace

<b>Unit reference number:</b>	<b>F/506/4672</b>
<b>Level:</b>	<b>2</b>
<b>Credit value:</b>	<b>7</b>
<b>Guided learning hours:</b>	<b>23</b>

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## 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.

## Unit 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 Construction Skills 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.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the preparation and use of powered units, tools or pedestrian plant, machinery or equipment.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, operating instructions and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, legislation, Codes of Practice, manufacturers' information and operating instructions.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to comply with relevant legislation and official guidance to prepare and use powered units, tools or pedestrian plant, machinery or equipment.	2.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		2.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
3	Maintain safe and healthy working practices when preparing for and using powered units, tools or pedestrian plant, machinery or equipment.	3.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements when using powered units, tools or pedestrian plant, machinery or equipment.			
		3.2	Demonstrate compliance with given information and relevant legislation when using powered units, tools or pedestrian plant, machinery or equipment in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use of access equipment</li> <li>safe handling of materials</li> <li>safe use and storage of materials, tools and equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		3.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to powered units, tools or pedestrian plant, machinery or equipment use, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
4	Select the required quantity and quality of resources to prepare for and sustain powered units, tools or pedestrian plant, machinery or equipment.	4.1	Select resources associated with the type of work in relation to fuel/power source, lubricants and consumables.			
		4.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• power source/fuels</li> <li>• consumables, lubricants.</li> </ul>			
		4.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			
		4.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		4.5	Describe any potential hazards associated with the resources and methods of work.		
		4.6	Describe how to identify quantity, length, area and wastage associated with the method/procedures to operate powered units, tools or pedestrian plant, machinery or equipment.		
5	Minimise the risk of damage to the work and surrounding area when preparing to and using powered units, tools or pedestrian plant, machinery or equipment.	5.1	Protect the work and its surrounding area from damage. In accordance with safe working practices and organisational procedures.		
		5.2	Prevent damage and maintain a clean work space.		
		5.3	Dispose of waste in accordance with current legislation.		
		5.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.		
		5.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.		
6	Complete the work within the allocated time when preparing to and using powered units, tools or pedestrian plant, machinery or equipment.	6.1	Demonstrate completion of the work within the allocated time.		
		6.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
7	Comply with the given contract information to operate powered units, tools or pedestrian plant, machinery or equipment to the required specification.	7.1	Demonstrate the following work skills when using powered units, tools or pedestrian plant, machinery or equipment: <ul style="list-style-type: none"> <li>starting, stopping, replenishing, controlling and cleaning.</li> </ul>			
		7.2	Use and maintain powered units, tools and ancillary equipment.			
		7.3	Operate and monitor powered units and tools or pedestrian plant, machinery or associated equipment to given working instructions relating to: <ul style="list-style-type: none"> <li>continual running</li> <li>closing down</li> <li>cleaning.</li> </ul>			
		7.4	Return powered unit, tools or pedestrian plant, machinery or equipment to a safe operational condition on completion of work.			
		7.5	Disassemble and/or clean powered unit, tools or pedestrian plant, machinery or equipment.			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>7.6 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• prepare, position and set up for work</li> <li>• secure accessories and tool attachments</li> <li>• carry out pre-use and function checks to manufacturers' and suppliers' information/ and procedures</li> <li>• complete pre-start and post stop checks</li> <li>• recognise the characteristics of the plant, machinery and equipment</li> <li>• identify specific operating and safety requirements for the task and work</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	7.7 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to: <ul style="list-style-type: none"> <li>• operate, use and control</li> <li>• monitor and maintain</li> <li>• replenish consumables</li> <li>• close down and secure</li> <li>• disassemble and clean</li> <li>• use access equipment</li> <li>• transport and store.</li> </ul>			
	7.8 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and using powered units, tools or pedestrian plant, machinery or equipment.			
	7.9 Describe how to maintain the hand tools, portable power tools, powered units, pedestrian plant, machinery and ancillary equipment used for the work.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

# **Unit 73: Erecting and dismantling plant - cranes and rigs - in the workplace**

**Unit reference number: R/506/4675**

**Level: 2**

**Credit value: 36**

**Guided learning hours: 120**

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## **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.

## **Unit 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.

Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.

Workplace evidence of skills cannot be simulated.

This unit must be assessed against the endorsements detailed within the relevant Rule of Combination (RoC). Please refer to the RoC applicable to the qualification/occupational area in which the candidate is being assessed.

## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to erecting and dismantling plant.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments and manufacturers' information.</li> </ul>			
2	Organise with others the sequence and operation in which erecting and dismantling operations 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	Describe how to organise resources prior to and during erecting and dismantling operations.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when erecting and dismantling plant.	3.1	Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working: <ul style="list-style-type: none"> <li>in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting.</li> </ul>			
		3.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when carrying out erecting and dismantling of plant.	4.1	Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with legislation and organisational requirements during erecting and dismantling operations.			
		4.2	Demonstrate compliance with given information and relevant legislation when carrying out erecting and dismantling of plant in relation to two or more of the following: <ul style="list-style-type: none"> <li>safe use and storage of plant</li> <li>safe use and storage of tools and equipment</li> <li>safe use of access equipment</li> <li>specific risks to health.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date	
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to erecting and dismantling plant, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>• collective protective measures</li> <li>• personal protective equipment (PPE)</li> <li>• respiratory protective equipment (RPE)</li> <li>• local exhaust ventilation (LEV).</li> </ul>			
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.			
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.			
5	Request and select the required quantity and quality of resources to carry out erecting and dismantling of plant.	5.1	Request and select resources associated with the work in relation to consumables, materials, attachments, tools, and ancillary equipment.			
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to: <ul style="list-style-type: none"> <li>• plant</li> <li>• hand and/or powered tools and equipment.</li> </ul>			
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.			
		5.5	Describe any potential hazards associated with the resources and methods of work.			
		5.6	Describe how to identify weight, pressure, quantity, length and area associated with the method/procedures to carry out the work.			
6	Minimise the risk of damage to the work and surrounding area when erecting and dismantling plant.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.			
		6.2	Prevent damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when erecting and dismantling plant.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Describe the purpose of the work programme and describe why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to erect and dismantle plant to the required specification.	8.1	Demonstrate the following work skills when erecting and dismantling plant: <ul style="list-style-type: none"> <li>unloading, loading, siting, measuring, marking out, laying out, aligning, fitting, positioning, connecting, configuring, dismantling, removing, adjusting, securing, checking and inspecting.</li> </ul>			
		8.2	Use and maintain hand tools, portable power tools, ancillary equipment and machinery.			
		8.3	Prepare, erect and dismantle plant to given working instructions of one or more of the following: <ul style="list-style-type: none"> <li>mobile crane</li> <li>mobile tower crane</li> <li>crawler crane</li> <li>self-erect equipment</li> <li>drilling rig</li> <li>piling rig</li> <li>demolition rig.</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.4 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• erect and dismantle one or more of the following: mobile crane, mobile tower crane, crawler crane, self-erect equipment, drilling rig, piling rig and demolition rig</li> <li>• consider ground conditions and work area</li> <li>• fit, fasten and secure equipment</li> <li>• dismantle and remove equipment</li> <li>• recognise the requirements for controlling, directing and guiding the movement and operations of plant and machinery</li> </ul>			
	<p>8.5 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> <li>• identify valid certification for maintenance, inspection and thorough examination</li> <li>• recognise and determine when specific skills and knowledge are required and report accordingly</li> <li>• complete function checks</li> <li>• use access equipment</li> <li>• use hand tools, power tools, plant and equipment</li> <li>• record and report.</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		8.6 Describe the needs of other occupations and how to effectively communicate within a team when preparing for and erecting and dismantling plant.			
		8.7 Describe how to maintain the hand tools, portable power tools, plant and ancillary equipment used to erect and dismantle plant.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*



## Learning outcomes and assessment criteria

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements the learner is expected to meet to achieve the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Interpret the given information relating to the work and resources when preparing, operating and controlling road plant or machinery.	1.1	Interpret and extract relevant information from drawings, specifications, schedules, risk assessments, method statements and manufacturers' information.			
		1.2	Comply with information and/or instructions derived from risk/COSHH assessments and method statements.			
		1.3	Describe 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"> <li>drawings, specifications, schedules, method statements, risk assessments, organisational and manufacturers' information and current regulations and official guidance governing operations of plant or machinery.</li> </ul>			
2	Organise with others the sequence in which the preparing, operating and controlling road plant or machinery are to be carried out.	2.1	Organise the work according to given information or instructions.			
		2.2	Communicate with team members and other associated occupations about the plant or machinery operations and the work to be carried out.			
		2.3	Describe how to communicate ideas between team members.			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know how to comply with relevant legislation and official guidance when preparing, operating and controlling road plant or machinery.	3.1	Describe their responsibilities regarding potential accidents health hazards and the environment, whilst working: <ul style="list-style-type: none"> <li>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.</li> </ul>			
		3.2	Describe the organisational security procedures for plant and/or machinery, tools, equipment and personal belongings in relation to site, workplace, company and operative.			
		3.3	Explain what the accident reporting procedures are and who is responsible for making reports.			
4	Maintain safe and healthy working practices when preparing, operating and controlling road plant or machinery.	4.1	Use health and safety control equipment safely to carry out the activity in accordance with current legislation and organisational requirements when preparing, operating and controlling road plant or machinery.			
		4.2	Comply with information relating to specific risks to health when preparing, operating and controlling road plant or machinery.			
		4.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to preparing, operating and controlling road plant or machinery, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> <li>collective protective measures</li> <li>personal protective equipment (PPE)</li> <li>respiratory protective equipment (RPE)</li> <li>local exhaust ventilation (LEV).</li> </ul>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
		4.4	Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.		
		4.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related activities.		
5	Request and select the required quantity and quality of resources when preparing, operating and controlling road plant or machinery.	5.1	Request and select resources associated with own work in relation to tools, ancillary equipment and/or accessories.		
		5.2	Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, in relation to: <ul style="list-style-type: none"> <li>• consumables, lubricants, fuels</li> <li>• attachments</li> <li>• paving materials (bituminous; concrete; aggregates, resins, membranes, calcined bauxite, catalyst, doping agents, fibres, pigment, resins, primers)</li> <li>• recycling materials</li> <li>• pavement marking materials</li> <li>• equipment/accessories.</li> </ul>		
		5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.		
		5.4	Explain why the organisational procedures have been developed and how they are used for the selection of required resources.		
		5.5	Describe any potential hazards associated with the resources and methods of work.		

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
		5.6	Describe how to calculate weight, quantity, length and area associated with the method/procedure to prepare, operate and control road plant or machinery.			
6	Minimise the risk of damage to the work and surrounding area when preparing, operating and controlling road plant or machinery.	6.1	Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures			
		6.2	Minimise damage and maintain a clean work space.			
		6.3	Dispose of waste in accordance with current legislation.			
		6.4	Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.			
		6.5	Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.			
7	Complete the work within the allocated time when preparing, operating and controlling road plant or machinery.	7.1	Demonstrate completion of the work within the allocated time.			
		7.2	Shut down and secure the plant.			
		7.3	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> <li>types of progress charts, timetables and estimated times</li> <li>organisational procedures for reporting circumstances which will affect the work programme.</li> </ul>			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
8	Comply with the given contract information to form and/or maintain roads by preparing, operating and controlling road plant or machinery to the required specification.	8.1	Demonstrate the following work skills when preparing, operating and controlling road plant or machinery: <ul style="list-style-type: none"> <li>checking, setting up, adjusting, communicating, operating, controlling, securing, laying, stripping, compacting, marking, levelling and finishing.</li> </ul>			
		8.2	Prepare, operate, control operations and shut down road plant or machinery to given working instructions relating to one of the following areas: <ul style="list-style-type: none"> <li>Bituminous paving: for one of the following – screed operator), paver driver, roller driver, chipping machine driver, loader-compressor driver, sweeper operator, tanker/sprayer operator, geo-synthetic (membrane, mesh) installation, spray injection patching, thermal repair</li> <li>Concrete paving: as operator of one of the following – concrete paver, placer/spreader, slip form paver, texturing/curing machine</li> <li>Slurry/microsurfacing: as operator of one of the following – applicator, tanker, tipper grab, sweeper, roller</li> </ul>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	<p>8.3 Prepare, operate, control operations and shut down road plant or machinery to given working instructions relating to one of the following areas:</p> <ul style="list-style-type: none"> <li>• Surface dressing: as operator of one of the following – tanker, chipper, spray bar, tanker and chipper combined, roller, loader, linked tipper, sweeper</li> <li>• High friction surfacing: as operator of one of the following – tanker, spray bar, chipper, sweeper</li> <li>• Planing operations: as operator of one of the following – up to 500 mm without elevator; 500 mm –1 m with elevator; over 1 m with elevator</li> <li>• Road recycling: as operator</li> <li>• Soil stabilisation: as operator</li> </ul>			
	<p>8.4 Prepare, operate, control operations and shut down road plant or machinery to given working instructions relating to one of the following areas:</p> <ul style="list-style-type: none"> <li>• Surface retexturing: as operator for one of the following – mechanical retexturing, mechanical repair, flailing, high pressure jetting, grinding, sweeper</li> <li>• Pavement marking: as steersman/operator for white liner vehicle</li> <li>• Highways drainage: as operator for one of the following – gully emptier, sweeper.</li> </ul>			
	<p>8.5 Safely use plant or machinery, tools, ancillary equipment and/or accessories.</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	8.6 Safely store the plant or machinery, tools and equipment and/or accessories used when preparing, operating and controlling road plant or machinery.			
	8.7 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to: <ul style="list-style-type: none"> <li>• identify the work requirements and your occupational role</li> <li>• identify the type of plant or machinery required</li> <li>• confirm the area and location of work, the operations, safety and security requirements</li> <li>• prepare, set up and carry out checks for performance of the plant or machinery</li> <li>• carry out and control operations according to your role and the required performance of plant or machinery</li> <li>• stop, shut down operations and secure plant or machinery</li> <li>• use equipment and/or accessories.</li> </ul>			
	8.8 Describe the needs of other occupations and how to effectively communicate within a team when preparing, operating and controlling road plant or machinery.			
	8.9 Describe how to maintain the plant or machinery and tools and equipment used when preparing, operating and controlling road plant or machinery.			

Learner name: \_\_\_\_\_

Date: \_\_\_\_\_

Learner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Assessor signature: \_\_\_\_\_

Date: \_\_\_\_\_

Internal verifier signature: \_\_\_\_\_

Date: \_\_\_\_\_

*(if sampled)*

## 12 Further information and useful publications

To get in touch with us visit our 'Contact us' pages:

- Edexcel: [qualifications.pearson.com/contactus](http://qualifications.pearson.com/contactus)
- BTEC: [qualifications.pearson.com/en/qualifications](http://qualifications.pearson.com/en/qualifications)
- Pearson Work Based Learning:  
[qualifications.pearson.com/en/qualifications](http://qualifications.pearson.com/en/qualifications)
- books, software and online resources for UK schools and colleges:  
[www.pearsonschoolsandfecolleges.co.uk](http://www.pearsonschoolsandfecolleges.co.uk)

Key publications:

- *Adjustments for candidates with disabilities and learning difficulties – Access and Arrangements and Reasonable Adjustments, General and Vocational qualifications* (Joint Council for Qualifications (JCQ))
- *Equality Policy* (Pearson)
- *Recognition of Prior Learning Policy and Process* (Pearson)
- *UK Information Manual* (Pearson)
- *UK Quality Vocational Assurance Handbook* (Pearson).

All of these publications are available on our website.

Further information and publications on the delivery and quality assurance of NVQ/Competence-based qualifications are available at our website:

<http://qualifications.pearson.com/en/qualifications.html>

Our publications catalogue lists all the material available to support our qualifications. To access the catalogue and order publications, please go to the resources page of our website.

# 13 Professional development and training

## Professional development and training

Pearson supports customers with training related to our qualifications. This support is available through a choice of training options offered on our website.

The support we offer focuses on a range of issues, such as:

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

The national programme of training we offer is on our website. You can request centre-based training through the website or you can contact one of our advisers in the Training from Pearson UK team via Customer Services to discuss your training needs.

## Training and support for the lifetime of the qualifications

**Training and networks:** our training programme ranges from free introductory events through sector-specific opportunities to detailed training on all aspects of delivery, assignments and assessment. We also host some regional network events to allow you to share your experiences, ideas and best practice with colleagues in your region.

**Regional support:** our team of Regional Quality Managers, based around the country, are responsible for providing quality assurance support and guidance to anyone managing and delivering NVQs/Competence-based qualifications. The Regional Quality Managers can support you at all stages of the standard verification process as well as in finding resolutions of actions and recommendations as required.

To get in touch with our dedicated support teams please visit our website at: [qualifications.pearson.com/en/support/contact-us.html](http://qualifications.pearson.com/en/support/contact-us.html)

**Online support:** find the answers to your questions in *Knowledge Base*, a searchable database of FAQs and useful videos that we have put together with the help of our subject advisors to support you in your role. Whether you are a teacher, administrator, Assessment Associate (AA) or training provider, you will find answers to your questions. If you are unable to find the information you need please send us your query and our qualification or administrative experts will get back to you.

## 14 Contact us

We have a dedicated Account Support team, across the UK, to give you more personalised support and advice. To contact your Account Specialist:

**Email:** wblcustomerservices@pearson.com

**Telephone:** 0844 576 0045

If you are new to Pearson and would like to become an approved centre, please contact us by:

**Email:** wbl@pearson.com

**Telephone:** 0844 576 0045

# Annexe A: Consolidated Assessment Strategy for Construction and the Built Environment

## 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.

### Introduction

This assessment strategy provides principles and guidance to awarding organisations so the assessment of units and qualifications with NVQ in the Qualifications and Credit Framework (QCF) title and SVQs is valid, effective and consistent, and has credibility across the Construction and Built Environment sector. This is a consolidated ConstructionSkills Assessment Strategy covering construction and the built environment – craft, supervisory, technical, managerial and professional NVQ and SVQ units and qualifications. This assessment strategy is one of the strands of the ConstructionSkills' Construction Qualification Strategy.

These principles are in addition to the requirements that awarding organisations must meet for the delivery of NVQ and SVQ units and qualifications as required by the qualification regulators' documentation.

This consolidated assessment strategy provides the overarching principles as systems may vary from one awarding organisation to another. Awarding organisations must consistently put these principles into practice.

*Appendix A* provides guidance to help awarding organisations incorporate relevant parts of these principle requirements in their documentation.

*Appendix B* provides a list of sub annexes relevant to specific NVQ or SVQ qualifications and units, these sub annexes contain additional information for awarding organisations where National Working Groups or Awarding Body Fora have identified the need for specific clarification. Clarification may be about the terminology of the content of the unit (ref. section 2.1), or specific occupational expertise requirements for assessors and verifiers (ref. section 4).

Awarding organisations must make this Strategy and the relevant annexes available to assessors, verifiers and candidates.

### Principles

#### 1 External quality control of assessment

1.1 Awarding organisations must use risk management for external quality control of assessment. They must evaluate all external verification reports and other data relating to assessment centres. Awarding organisations must address any risks relating to quality control, considering the sector assessment strategy requirements for:

- workplace evidence
- the use of simulation
- the occupational competence of assessors and verifiers.

- 1.2 The monitoring and standardisation of assessment decisions must be achieved by robust and strong internal and external verification systems that meet the requirements of the qualification regulators' documentation.
- 1.3 Awarding organisations must be members of the sector's Built Environment Awarding Body Forum, of which the qualification regulators are members. Members will be expected to provide feedback on National Occupational Standards (NOS), NVQ or SVQ units and qualifications, including aspects informing incremental change.
- 1.4 The Forum will, in respect of this strategy:
- build on the good relationships with awarding organisations
  - provide opportunities to identify and address particular issues of external quality control
  - contribute to improving quality and consistency
  - support awarding organisations to monitor assessment centres' performance to identify areas and levels of risk
  - provide information and statistics about take-up and completion, as well as trends and developments that can be used by ConstructionSkills and awarding organisations to identify any problem areas and agree remedial action
  - discuss matters concerning quality assurance, as well as providing the opportunity to identify issues arising from implementation of NOS and related vocational qualifications
  - inform the continuous improvement of NOS, and awards derived from them
  - identify and share best practices to build a whole industry approach to pursue excellence in education and work-based learning and assessment process to achieve competence.
- 1.5 Awarding organisations and their partners, assessment centres, verifiers and assessors must maintain robust and transparent operational arrangements. They must preserve independence in assessment, certification and quality assurance processes. Awarding organisations must ensure clear separation of their NVQ/SVQ assessment responsibilities from their industry, training, membership, certification, accreditation and commercial interests and resolve any conflicts of interest.
- 1.6 Where e-assessment is used, it must meet the requirements of the qualification regulators' documentation.

## **2 Aspects to be assessed through performance in the workplace**

- 2.1 Direct evidence produced through normal performance in the workplace is the primary source for meeting the requirements. This includes naturally occurring documentary evidence (hard copy and electronic), direct observation of activities and witness testimony as relevant. ConstructionSkills' National Working Groups will specify any exceptions to this position (see section 3).

- 2.2 Workplace evidence must be supported by the required evidence of knowledge and understanding. This evidence may be identified by:
- questioning the candidate
  - recognised industry education and training programme assessment or professional interview assessment that has been matched to NOS requirements
  - performance evidence
- 2.3 A holistic approach towards the collection of evidence should be encouraged. The focus should be on assessing activities generated by the whole work experience rather than focusing on specific tasks. This would show how evidence requirements could be met across the qualification to make the most efficient use of evidence. Annex A suggests standard evidence notes for awarding organisations.

### **3 How simulated working conditions may be used to assess competence**

- 3.1 Simulations (designed situations for producing artificially generated evidence) may only be used where candidates are prevented from gathering direct evidence from the workplace in the normal way because:
- there are hazards
  - it is difficult to distinguish individual performance in team situations
  - circumstances occur infrequently or long term results are involved
  - confidentiality is important
  - there are organisational constraints.
- 3.2 Any instances where simulation is considered to be acceptable as an alternative (to direct workplace evidence) means of generating evidence, will be determined by the relevant ConstructionSkills National Working Group and stated in the unit. Annex A suggests standard evidence notes for awarding organisations.
- 3.3 The ConstructionSkills National Working Group will determine and specify on the required realistic working environment and context to be adopted. This could include appropriate:
- tools, equipment and instruments
  - materials
  - types of contingencies
  - standards and quality specifications
  - real timescales
  - quantities of work
  - physical conditions
  - relationships with people
  - types of interaction
  - communication methods and media
  - information and data.

- 3.4 Where simulated evidence is stated as acceptable in the unit, the circumstances and requirements for the simulation needs to be confirmed by discussions between the candidate and the assessor, and which are then agreed by the internal and external verifiers.
- 3.5 Where other Standard Setting Bodies' units are imported into a ConstructionSkills suite, the evidence requirements of the originating body will be adopted and specified.

#### **4 Occupational expertise requirements for assessors and verifiers**

4.1 Awarding organisations must ensure that **assessors**:

4.1.1 have sufficient, verifiable, relevant current industry experience, knowledge and understanding of the occupational working area at, or above, the level being assessed. This must be of sufficient depth to be effective and reliable when judging candidates' competence. Assessors' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement
- references
- possession of a relevant NVQ/SVQ, or vocationally related qualification
- corporate membership of a relevant professional institution
- interview

(The verification process must be recorded and available for audit)

4.1.2 have sufficient occupational expertise so they have up to date experience, knowledge and understanding of the particular aspects of work they are assessing. This could be verified by records of continuing professional development achievements

4.1.3 only assess in their acknowledged area of occupational competence

4.1.4 have a sound, in-depth knowledge of, and uphold the integrity of, the sector's NOS and this Assessment Strategy (this document)

4.1.5 are prepared to participate in training activities for their continued professional development

4.1.6 hold, or are working towards, a qualification as listed within 'Assessing and Assuring Quality of Assessment', either in the Qualifications and Credit Framework (QCF), or the Scottish Credit and Qualifications Framework (SCQF):

- Level 3 Award in Assessing Competence in the Work Environment
- Level 3 Certificate in Assessing Vocational Achievement
- SVQ (SCQF level) Assessing Competence in the Work Environment
- SVQ (SCQF level) Assessing Vocational Achievement

or hold one of the following

- A1 Assess candidates using a range of methods
- D32/33 Assess candidate performance, using differing sources of evidence

Holders of A1 and D32/33 must assess to the reviewed National Occupational Standards (NOS) for Learning and Development.

In Scotland, approval for exemptions must be obtained from the Scottish Qualifications Authority.

4.2 Awarding organisations must ensure that internal verifiers:

4.2.1 have sufficient, verifiable, relevant up to date experience, knowledge and understanding of the occupational working area at, or above, the level being verified. This must be of sufficient depth to be effective and reliable when verifying judgements about assessors' assessment processes and decisions. Internal verifiers' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement
- references
- possession of a relevant NVQ/SVQ, or vocationally related qualification
- corporate membership of a relevant professional institution
- interview

(The verification process must be recorded and available for audit)

4.2.2 have expertise so they have up to date experience, knowledge and understanding of the particular aspects of work they are verifying. This could be verified by records of continuing professional development achievements

4.2.3 have a sound, in-depth knowledge of, and uphold the integrity of, the NOS and this Assessment Strategy (this document)

4.2.4 are prepared to participate in training activities for their continued professional development

4.2.5 hold, or are working towards, a qualification as listed in 'Assessing and Assuring Quality of Assessment', either in the Qualifications and Credit Framework (QCF), or the Scottish Credit and Qualifications Framework (SCQF):

- Level 4 Award in the Internal Quality Assurance of the Assessment Process and Practice
- Level 4 Certificate in Leading the Internal Quality Assurance of Assessment Process and Practice
- SVQ(SCQF level) in the Internal Quality Assurance of the Assessment Process and Practice
- SVQ (SCQF level) in Leading the Internal Quality Assurance of Assessment Process and Practice

or hold one of the following

- VI Conduct internal quality assurance of the assessment process
- D34 Internal verify the assessment process

Holders of V1/D34 must quality assure to the reviewed National Occupational Standards (NOS) for Learning and Development.

It is strongly recommended that within the role of Internal Quality Assurance one of the following qualifications is held.

- Level 3 Award in Assessing Competence in the Work Environment
- Level 3 Certificate in Assessing Vocational Achievement

- SVQ (SCQF level) Assessing Competence in the Work Environment
- SVQ (SCQF level) Assessing Vocational Achievement

or one of the following

- A1 Assess candidates using a range of methods
- D32/33 Assess candidate performance, using differing sources of evidence

4.3 Awarding organisations must ensure that **external verifiers**:

4.3.1 the occupational working area at, or above, the level being verified. This must be of sufficient depth to be effective and reliable when verifying judgements about internal verification and assessment processes and decisions. External verifiers' experience, knowledge and understanding could be verified by a combination of:

- curriculum vitae and employer endorsement
- references
- possession of a relevant NVQ/SVQ, or vocationally related qualification
- corporate membership of a relevant professional institution
- interview

(The verification process must be recorded and available for audit)

4.3.2 have sufficient expertise so they have an up to date experience, knowledge and understanding of the particular aspects of work they are verifying. This could be verified by records of continuing professional development achievements

4.3.3 have a sound, in-depth knowledge of, and uphold the integrity of, the NOS and this Assessment Strategy (this document)

4.3.4 are prepared to participate in training activities for their continued professional development

4.3.5 hold, or are working towards, a qualification as listed in 'Assessing and Assuring Quality of Assessment', either in the Qualifications and Credit Framework (QCF), or the Scottish Credit and Qualifications Framework (SCQF):

- Level 4 Award in the External Quality Assurance of the Assessment Process and Practice
- Level 4 Certificate in Leading the External Quality Assurance of Assessment
- SVQ (SCQF level) in the External Quality Assurance of the Assessment Process and Practice
- SVQ (SCQF) in Leading the External Quality Assurance of Assessment

or hold one of the following

- V2 Conduct external quality assurance of the assessment process
- D35 Externally verify the assessment process

Holders of V2/D35 must quality assure to the reviewed National Occupational Standards (NOS) for Learning and Development.

It is strongly recommended that within the role of External Quality Assurance one of the following qualifications is held at Level 3 and Level 4.

Level 3:

- Level 3 Award in Assessing Competence in the Work Environment
- Level 3 Certificate in Assessing Vocational Achievement
- SVQ (SCQF level) Assessing Competence in the Work Environment
- SVQ (SCQF level) Assessing Vocational Achievement

or one of the following

- A1 Assess candidates using a range of methods
- D32/33 Assess candidate performance, using differing sources of evidence

Level 4:

- Level 4 Award in the Internal Quality Assurance of the Assessment Process and Practice
- Level 4 Certificate in Leading the Internal Quality Assurance of Assessment Process and Practice
- SVQ(SCQF level) in the Internal Quality Assurance of the Assessment Process and Practice
- SVQ (SCQF level) in Leading the Internal Quality Assurance of Assessment Process and Practice
- VI Conduct internal quality assurance of the assessment process
- D34 Internal verify the assessment process

#### **4.4 Selection and appointment of assessors and verifiers**

All applicants should be advised that they may be interviewed. Applicants' CVs should be profiled against the activities and range of the NVQ/SVQ(s) they will assess/verify to check that the applicant has the relevant current experience, knowledge and understanding of the occupational working area:

- at, or above, the level they will be assessing
- of sufficient depth to credibly verify judgements and assessments
- to uphold the integrity of the NOS and this Consolidated Assessment Strategy.

All assessors should have experience as well as, not in lieu of, qualifications. Where there seem to be gaps in a potentially suitable applicant's experience and knowledge, the applicant should be interviewed. Successful applicants' CVs, profiling, reasons for not needing to interview and interview records should be available for audit.

## Appendix B1

### **Additional Information to the Consolidated Assessment Strategy from the National Working Group for Controlling Lifting Operations**

#### **Part A: Clarification and guidance notes**

This additional information has been produced to ensure consistency in interpreting the occupational expertise requirements for assessors as described in paragraph 4.1 of the ConstructionSkills' Consolidated Assessment Strategy. This should help awarding organisations incorporate relevant parts of the assessment strategy principles' requirements in their documentation for the Controlling Lifting Operations units and qualifications with NVQ in the QCF title and SVQs.

#### **Additional requirements for assessors of planning and supervising lifting operations**

Assessors must be competent and have an up-to-date working knowledge of the occupation and sector. Assessors must have had active involvement in lifting operations and on each endorsement for which they wish to assess. The awarding body must ensure that all assessors are competent on each endorsement for which they intend to assess.

#### **Supplementary guidance**

In order to meet contractual and regulative requirements, many sectors of industry require lift planners and supervisors to possess certification from recognised industry approved bodies. The awarding body should ideally encourage all assessors to hold appropriate registration cards or certificates to support industry initiatives for a qualified workforce.

Where lifting experience was gained within the armed forces, applicants for assessor status should ideally gain external work experience within industry, or be able to demonstrate knowledge of relevant industry working practices outside the armed forces.

#### **Part B: Clarification on standards (NOS) content terminology**

Various sectors of industry, supported by the Health and Safety Executive, requested national occupational standards for the safety critical occupations of lift planner and lift supervisor. Standards from the suite of National Occupational Standards for Construction Site Supervision and Construction Site Management were identified by the National Working Group (NWG) as conveniently defining the job roles of planner and supervisor.

Certain standards (NOS), however, use terminology particular to, or make reference to, the construction sector, limiting the scope of the standards. Clarification of NOS terminology has been produced (Annex B1, page ii), by the NWG, for awarding organisations, which provides interpretation and meaning of selected words that are used in lifting operations within other industrial sectors. Provision of this clarification further avoids a proliferation of new standards.

Awarding organisations need to ensure that candidates, employers, assessment centres, assessors and those involved in the verification process for this qualification are informed of the clarification of NOS terminology for planning and supervising lifting operations.

## Clarification of NOS terminology for controlling lifting operations

<b>'construction operations'</b>	Includes lifting operations within other sectors of industry.
<b>'decision-makers'</b>	This refers to the client, customer or their representative, senior/contracts manager, project team, consultants or in VR 705 the lift planner.
<b>'ensure notice has been given to all the people who will be affected'</b>	This means as dictated by the lift plan.
<b>'lines' 'levels', 'angles'</b>	This includes load levels, ground levels, lines for placing loads and lifting accessory angles.
<b>'near neighbours'</b>	This can include other structures and a workforce in a different part of the project.
<b>'organise and control the site'</b>	The lifting activity and the immediate surrounding area.
<b>'position, align and/or level the work'</b>	This refers to items being moved and placed and the equipment used to attach and move the loads.
<b>'produce clear requests for plant, equipment or machinery'</b>	This means those specified by the lift plan.
<b>'place and maintain notices'</b>	This means ensuring that the correct notices (for the lifting activity) are in place prior to the commencement of the lifting activity, and checked throughout the duration of the activity.
<b>'plan how the work will be undertaken'</b>	This means as dictated by the lift plan.
<b>'programmes and schedules'</b>	This refers to either component parts of, or the complete lift plan.
<b>'project'</b>	A lifting operation that is taking place within an overall contract, project or work activity.
<b>'project plan'</b>	This refers to either component parts of, or the complete lift plan.
<b>'site'</b>	A lifting operation that is taking place within an overall contract, project or work activity.
<b>'site plan'</b>	This refers to either components part of, or the complete lift plan.
<b>'vehicular access'</b>	This can comprise of all forms of transport, including waterborne and airborne craft.

## Appendix B2

### **Additional Information to the Consolidated Assessment Strategy from the Awarding Body Forum for Plant Operations**

#### **Clarification and guidance notes**

##### **Aspects to be assessed through performance in the workplace**

This additional information has been produced to ensure consistency in aspects to be assessed through performance in the workplace as described in paragraph 2.1 of the ConstructionSkills' Consolidated Assessment Strategy. This should help awarding organisations incorporate the guidance into their assessment methodology for Plant Operations units and qualifications with NVQ in the QCF title and SVQ in the SCQF.

##### **Additional requirements for assessment in the workplace**

Direct evidence produced through normal performance in the workplace is the primary source for meeting the requirements. This direct evidence must be met using a combination of the following methods.

- direct observation by the assessor
- witness testimony by an expert witness related to the occupational area
- professional discussion.

Workplace evidence must be supported by the required evidence of knowledge and understanding gained from at least three month's work-based experience.

##### **Occupational expertise requirements for assessors**

This additional information has been produced to ensure consistency in interpreting the occupational expertise requirements for assessors as described in paragraph 4.1 of the ConstructionSkills' Consolidated Assessment Strategy. This should help awarding organisations incorporate relevant parts of the assessment strategy principles' requirements in their documentation for Plant Operations units and qualifications with NVQ in the QCF title and SVQs.

##### **Additional requirements for assessors of plant operations**

Assessors must be competent and have an up-to-date working knowledge of the occupation and sector. Assessors must have had active involvement in plant operations and on each endorsement for which they wish to assess. The awarding organisation must ensure that all assessors are competent on each endorsement for which they intend to assess in accordance with requirements of the qualification regulators' guidance for England, Northern Ireland, Scotland and Wales.

### **Supplementary guidance**

In order to meet contractual and regulative requirements, many sectors of industry require operators of plant and equipment to possess certification from recognised industry approved bodies. The awarding organisation should ideally encourage all assessors to hold appropriate registration cards or certificates to support industry initiatives for a qualified workforce.

Where plant operating experience was gained within the armed forces, applicants for assessor status should ideally gain external work experience within industry, or be able to demonstrate knowledge of relevant industry working practices outside the armed forces.

## Appendix C

### Guidance on the use of simulation

#### Introduction

National Occupational Standards (NOS) are developed by Sector Skills Councils (SSCs) and describe the level of occupational competence required of a particular job role. NOS are then used to build National and Scottish Vocational Qualifications (N/SVQs) that are competence based qualifications and demand assessment in a workplace environment.

Assessment of N/SVQs through simulation is indicated where the achievement of valid and reliable assessment calls for evidence of performance under workplace conditions, but where it will be difficult to assess through normal working practice. This will usually apply as a result of one or more of the following constraints:

- activities which are inherently hazardous and where mistakes made in carrying them out would pose unacceptable risks to the candidate, other people, animals or property (e.g. electricity and gas sectors, fire service etc.)
- the costs incurred would be unacceptably high if mistakes were made during an activity and a candidate would therefore be required to 'prove' competence before progressing onto the actual work (e.g. handling rare or precious objects)
- situations where the qualities and outcomes of the candidate's behaviour are almost impossible to distinguish from those of their peers or colleagues, making authenticity uncertain (e.g. in some teamwork contexts)
- activities or situations which are sufficiently rare (e.g. where processes, such as a 'shut-down', may only occur on an annual basis)
- when the collection and/or review of evidence of workplace performance would intrude unacceptably on personal privacy or confidentiality, or would significantly alter the nature of an interaction or relationship (e.g. in some health care settings)
- a requirement to work with new techniques and/or work practices which may not be available in all workplaces.
- Where permitted, simulation can take one or a combination of the two following forms:
  - the candidate is presented with an activity to perform using equipment and/or in a location which replicates that found in the workplace
  - the candidate is presented with a situation to which they must respond; taking and playing the role they would expect to play in the workplace.

It is a SSC's responsibility to define the acceptability of evidence from simulation in the context of National Occupational Standards (NOS) and National and Scottish Vocational Qualifications (N/SVQs). The ConstructionSkills Consolidated Assessment Strategy provides this guidance.

## **Guidance on the acceptable use and characteristics of simulation within N/SVQs during the current economic climate**

Due to the current economic climate and its impact on construction industry apprentices, ConstructionSkills as the SSC for construction has agreed that there can be some flexibility around the use of simulation when assessing construction craft NVQs. This is set out as follows and applies up until the end of December 2011.

In situations where a displaced or employed apprentice (this does not apply to full-time learners) will not be able to demonstrate evidence in the workplace within an acceptable time span, Awarding Bodies can arrange with their centres to apply the following principles.

- 1 Units cannot be assessed using simulation alone – there must be some supporting work-based evidence.
- 2 A centre's strategy for simulation must be examined and approved by the external verifier.
- 3 The location and environment of simulation must be agreed with the internal verifier prior to taking place, and must be checked by the internal verifier.
- 4 The **nature of the contingency** and the **physical environment must be realistic** and candidates should not be given any indication as to exactly what contingencies they may come across.
- 5 All simulations must be planned, developed and documented by the centre in a way that ensures the simulation correctly reflects what the unit seeks to assess, and all simulations must follow these documented plans.
- 6 There should be a range of simulation to cover the same aspect of the unit so that the risk of candidates successfully colluding is reduced.
- 7 All simulation must reflect the urgency with which the activity would normally be carried out and the normal time needed to complete it, including the usual complexity of factors affecting the activity.
- 8 All simulation should involve the same personnel as would normally be included (e.g. bricklayer, supervisor, labourer etc.) and also similar realistic facilities.
- 9 Any instances of insufficient work-based evidence must be supported by adequate supplementary evidence which might include questioning; interviews with professional discussion; work projects; case studies; special assignments; self-testimony.

ConstructionSkills would strongly recommend that centres explore strategies with the candidate's employers for obtaining work-based evidence before considering the use of simulation. Examples might include using Group Training Associations, thereby carrying out real jobs within the college/training centre and/or involvement with community projects.

Group Training Association (GTA) is the government term for a training group which also shares apprentices. The GTA model is where a number of like-minded employers come together to create a separate business entity, which sources appropriate training and delivers apprenticeships by providing work experience across the range of engaged businesses.

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