



## **Level 2 NVQ Diploma in Plant Operations (Construction)**

### **Qualification Specification**

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## Introduction

The ProQual Level 2 NVQ Diploma in Plant Operations (Construction) qualification provides a nationally recognised qualification for plant operatives following one of 11 Pathways relating to their work roles:

- Pathway 1: Level 2 NVQ Diploma in Plant Operations (Cranes and Specialist Lifting)
- Pathway 2: Level 2 NVQ Diploma in Plant Operations (Extracting)
- Pathway 3: Level 2 NVQ Diploma in Plant Operations (Excavating)
- Pathway 4: Level 2 NVQ Diploma in Plant Operations (Constructing and Forming)
- Pathway 5: Level 2 NVQ Diploma in Plant Operations (Transporting Loads)
- Pathway 6: Level 2 NVQ Diploma in Plant Operations (Laying and Distributing)
- Pathway 7: Level 2 NVQ Diploma in Plant Operations (Road/Rail)
- Pathway 8: Level 2 NVQ Diploma in Plant Operations (Attachments)
- Pathway 9: Level 2 NVQ Diploma in Plant Operations (In-shore and Marine)
- Pathway 10: Level 2 NVQ Diploma in Plant Operations (Erecting and Dismantling)
- Pathway 11: Level 2 NVQ Diploma in Plant Operations (Road Plant or Machinery)

The awarding body for this qualification is ProQual Awarding Body ([www.proqualab.com](http://www.proqualab.com)) and the regulatory body is the Office of Qualifications and Examinations Regulation (Ofqual); It is also endorsed by the sector body for construction - CITB.

The qualification has been accredited onto the Regulated Qualifications Framework (RQF) and is published on Ofqual's Register of Qualifications at:

[http://register.ofqual.gov.uk/Qualification/Details/601\\_9029\\_2](http://register.ofqual.gov.uk/Qualification/Details/601_9029_2)

*This qualification replaces 600/6365/8 ProQual Level 2 NVQ Diploma in Plant Operations (Construction)(QCF).*

## Qualification Profile

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

Qualification title	<b>ProQual Level 2 NVQ Diploma in Plant Operations (Construction)</b>
Ofqual qualification number	601/9029/2
Level	2
Total Qualification Time	450 hours (150 GLH)
Assessment	Pass or fail Internally assessed and verified by centre staff External quality assurance by ProQual verifiers
Qualification start date	1/7/16
Qualification end date	
Revision date	17/10/23

## Entry Requirements

There are no formal entry requirements for this qualification.

Centres should carry out an **initial assessment** of candidate skills and knowledge to identify any gaps and help plan the assessment.

## Qualification Structure

To achieve the qualification candidates must complete the two Mandatory units plus the required Mandatory and/or Optional Units from one of the Pathways.

Candidates may complete any of the Additional Units but these will not count towards the qualification.

**CITB references and credit values are provided in this document for information only.**

Mandatory Units for all Pathways			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>M/508/6537</b>	Conforming to general health, safety and welfare in the workplace	1	2	641	A/503/1170
<b>T/508/6538</b>	Conforming to productive working practices in the workplace	2	3	642	J/503/1169

### Pathways

There are 11 Pathways, the Mandatory/Optional unit requirements for each are listed from page 7.

- Pathway 1: Level 2 NVQ Diploma in Plant Operations (Cranes and Specialist Lifting)
- Pathway 2: Level 2 NVQ Diploma in Plant Operations (Extracting)
- Pathway 3: Level 2 NVQ Diploma in Plant Operations (Excavating)
- Pathway 4: Level 2 NVQ Diploma in Plant Operations (Constructing and Forming)
- Pathway 5: Level 2 NVQ Diploma in Plant Operations (Transporting Loads)
- Pathway 6: Level 2 NVQ Diploma in Plant Operations (Laying and Distributing)
- Pathway 7: Level 2 NVQ Diploma in Plant Operations (Road/Rail)
- Pathway 8: Level 2 NVQ Diploma in Plant Operations (Attachments)
- Pathway 9: Level 2 NVQ Diploma in Plant Operations (In-shore and Marine)
- Pathway 10: Level 2 NVQ Diploma in Plant Operations (Erecting and Dismantling)
- Pathway 11: Level 2 NVQ Diploma in Plant Operations (Road Plant or Machinery)

## Additional Units

Candidates may complete any of the Additional Units but these will not count towards the qualification.

Additional Units for All Pathways			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	<i>Credit Value</i>	<i>CITB Internal Unit Ref.</i>	<i>CITB RITS Unit Ref.</i>
<b>Y/508/6533</b>	Moving, handling and storing resources in the workplace	2	5	643	F/503/1171
<b>F/508/6526</b>	Operating plant or machinery for non-operational activities in the workplace	2	10	659	L/505/0175

## Pathway 1: Cranes and Specialist Lifting

Candidates must complete TWO Mandatory Units, plus ONE Optional Unit

Mandatory Units			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>M/508/6537</b>	Conforming to general health, safety and welfare in the workplace	1	2	641	A/503/1170
<b>T/508/6538</b>	Conforming to productive working practices in the workplace	2	3	642	J/503/1169
Optional Units – complete ONE unit			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>H/508/6566</b>	Preparing and operating crawler cranes (above 10 tonnes) to lift and transfer loads in the workplace	2	80	387Bv2	D/506/4601
<b>K/508/6567</b>	Preparing and operating tower cranes to lift and transfer loads in the workplace	2	80	387Cv2	H/506/4602
<b>M/508/6568</b>	Preparing and operating mobile cranes to lift and transfer loads in the workplace	2	95	387Dv2	K/506/4603
<b>T/508/6569</b>	Preparing and operating crawler-tractor side booms to lift and transfer loads in the workplace	2	50	387Pv2	L/506/4612

## Pathway 2: Extracting

Candidates must complete TWO Mandatory Units, plus ONE Optional Unit

Mandatory Units			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>M/508/6537</b>	Conforming to general health, safety and welfare in the workplace	1	2	641	A/503/1170
<b>T/508/6538</b>	Conforming to productive working practices in the workplace	2	3	642	J/503/1169
Optional Units – complete ONE unit			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>K/508/6570</b>	Preparing and operating draglines to extract ground and/or loose materials in the workplace	2	60	388Av3	M/506/4618
<b>M/508/6571</b>	Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace	2	80	388Bv3	T/506/4619
<b>T/508/6572</b>	Preparing and operating tracked loading shovels to extract ground and loose materials in the workplace	2	80	388Dv3	A/506/4623
<b>A/508/6573</b>	Preparing and operating motorised scrapers to extract, transport and distribute materials in the workplace	2	80	388Fv3	J/506/4625
<b>F/508/6574</b>	Preparing and operating trenchers to extract ground and/or loose materials in the workplace	2	50	388Gv3	R/506/4627
<b>J/508/6575</b>	Preparing and operating 360 degree excavators to extract ground, face and/or loose materials in the workplace	2	80	388Jv3	D/506/4629
<b>L/508/6576</b>	Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace	2	80	388Lv1	R/506/4630

## Pathway 3: Excavating

Candidates must complete TWO Mandatory Units, plus ONE Optional Unit

Mandatory Units			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>M/508/6537</b>	Conforming to general health, safety and welfare in the workplace	1	2	641	A/503/1170
<b>T/508/6538</b>	Conforming to productive working practices in the workplace	2	3	642	J/503/1169
Optional Units – complete ONE unit			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>M/508/6571</b>	Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace	2	80	388Bv3	T/506/4619
<b>L/508/6576</b>	Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace	2	80	388Lv1	R/506/4630
<b>R/508/6577</b>	Preparing and operating draglines to excavate ground materials in the workplace	2	60	389Av3	Y/506/4631
<b>Y/508/6578</b>	Preparing and operating 360 degree excavators to excavate ground in the workplace	2	80	389Cv3	H/506/4728
<b>D/508/6579</b>	Preparing and operating trenchers to excavate ground in the workplace	2	50	389Dv3	D/506/4632
<b>R/508/6580</b>	Preparing and operating tracked loading shovels to excavate ground and loose materials in the workplace	2	80	389Fv1	F/506/4638

## Pathway 4: Constructing and Forming

Candidates must complete TWO Mandatory Units, plus ONE Optional Unit

Mandatory Units			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>M/508/6537</b>	Conforming to general health, safety and welfare in the workplace	1	2	641	A/503/1170
<b>T/508/6538</b>	Conforming to productive working practices in the workplace	2	3	642	J/503/1169
Optional Units – complete ONE unit			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>Y/508/6581</b>	Preparing and operating graders to form and shape ground and/or loose materials in the workplace	2	70	390Av3	A/506/4640
<b>L/508/6576</b>	Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace	2	80	388Lv1	R/506/4630
<b>D/508/6582</b>	Preparing and operating formwork rigs to construct and form in the workplace	2	52	390Dv1	J/506/9050

## Pathway 5: Transporting Loads

Candidates must complete **THREE Mandatory Units**.

Mandatory Units			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>M/508/6537</b>	Conforming to general health, safety and welfare in the workplace	1	2	641	A/503/1170
<b>T/508/6538</b>	Conforming to productive working practices in the workplace	2	3	642	J/503/1169
<b>H/508/6583</b>	Preparing and operating truck-mounted boom concrete pumps to receive, pump and discharge materials in the workplace	2	70	391Av3	F/506/4641

## Pathway 6: Laying and Distributing

Candidates must complete TWO Mandatory Units, plus ONE Optional Unit

Mandatory Units			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>M/508/6537</b>	Conforming to general health, safety and welfare in the workplace	1	2	641	A/503/1170
<b>T/508/6538</b>	Conforming to productive working practices in the workplace	2	3	642	J/503/1169
Optional Units – complete ONE unit			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>L/508/6576</b>	Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace	2	80	388Lv1	R/506/4630
<b>K/508/6584</b>	Preparing and operating soil stabilisers to lay and distribute materials in the workplace	2	40	393Av3	K/506/4651

## Pathway 7: Road/Rail

Candidates must complete **THREE Mandatory Units, plus ONE Optional Unit**

Mandatory Units			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>M/508/6537</b>	Conforming to general health, safety and welfare in the workplace	1	2	641	A/503/1170
<b>T/508/6538</b>	Conforming to productive working practices in the workplace	2	3	642	J/503/1169
<b>J/508/6527</b>	Preparing and operating road/rail adapted plant in the workplace	2	8	398v3	T/506/4670
Optional Units – complete ONE unit			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>M/508/6571</b>	Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace	2	80	388Bv3	T/506/4619
<b>T/508/6572</b>	Preparing and operating tracked loading shovels to extract ground and loose materials in the workplace	2	80	388Dv3	A/506/4623
<b>J/508/6575</b>	Preparing and operating 360 degree excavators to extract ground, face and/or loose materials in the workplace	2	80	388Jv3	D/506/4629
<b>L/508/6576</b>	Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace	2	80	388Lv1	R/506/4630
<b>Y/508/6578</b>	Preparing and operating 360 degree excavators to excavate ground in the workplace	2	80	389Cv3	H/506/4728

## Pathway 8: Attachments

Candidates must complete **THREE Mandatory Units, plus ONE Optional Unit**

Mandatory Units			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>M/508/6537</b>	Conforming to general health, safety and welfare in the workplace	1	2	641	A/503/1170
<b>T/508/6538</b>	Conforming to productive working practices in the workplace	2	3	642	J/503/1169
<b>L/508/6528</b>	Preparing and operating plant or machinery attachments in the workplace	2	7	399v3	A/506/4671
Optional Units – complete ONE unit			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>M/508/6571</b>	Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace	2	80	388Bv3	T/506/4619
<b>T/508/6572</b>	Preparing and operating tracked loading shovels to extract ground and loose materials in the workplace	2	80	388Dv3	A/506/4623
<b>J/508/6575</b>	Preparing and operating 360 degree excavators to extract ground, face and/or loose materials in the workplace	2	80	388Jv3	D/506/4629
<b>L/508/6576</b>	Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace	2	80	388Lv1	R/506/4630
<b>Y/508/6578</b>	Preparing and operating 360 degree excavators to excavate ground in the workplace	2	80	389Cv3	H/506/4728

## Pathway 9: In-shore Marine

Candidates must complete **THREE Mandatory Units, plus ONE Optional Unit**

Mandatory Units			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>M/508/6537</b>	Conforming to general health, safety and welfare in the workplace	1	2	641	A/503/1170
<b>T/508/6538</b>	Conforming to productive working practices in the workplace	2	3	642	J/503/1169
<b>M/508/6585</b>	Preparing and operating plant or machinery from a floating vessel in the workplace	2	36	403v2	L/506/4674
Optional Units – complete ONE unit			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>R/508/6479</b>	Preparing and operating compact cranes to lift and transfer loads in the workplace	2	30	387Av2	Y/506/4600
<b>H/508/6566</b>	Preparing and operating crawler cranes (above 10 tonnes) to lift and transfer loads in the workplace	2	80	387Bv2	D/506/4601
<b>M/508/6568</b>	Preparing and operating mobile cranes to lift and transfer loads in the workplace	2	95	387Dv2	K/506/4603
<b>J/508/6480</b>	Preparing and operating pedestrian operated tower cranes to lift and transfer loads in the workplace	2	30	387Ev2	M/506/4602
<b>R/508/6482</b>	Preparing and operating excavator cranes to lift and transfer loads in the workplace	2	30	387Gv2	A/506/4606
<b>F/508/6493</b>	Preparing and operating telescopic handlers to lift and transfer loads in the workplace	2	25	387Lv2	F/506/4610
<b>D/508/6484</b>	Preparing and operating lorry loaders or knuckle booms to lift and transfer loads in the workplace	2	30	387Qv2	R/506/4613
<b>R/508/6577</b>	Preparing and operating draglines to excavate ground materials in the workplace	2	60	389Av3	Y/506/4631
<b>Y/508/6578</b>	Preparing and operating 360 degree excavators to excavate ground in the workplace	2	80	389Cv3	H/506/4728

**Pathway 9 – Inshore Marine Optional Units  
/continued on page 16**

**Pathway 9 – Inshore Marine**  
**Optional Units continued**

<b>Unit Ref.</b>	<b>Title</b>	<b>Level</b>	<i>Credit Value</i>	<i>CITB Internal Unit Ref.</i>	<i>CITB RITS Unit Ref.</i>
<b>H/508/6583</b>	Preparing and operating truck-mounted boom concrete pumps to receive, pump and discharge materials in the workplace	2	70	391Av3	F/506/4641
<b>H/508/6504</b>	Preparing and operating trailer-mounted concrete pumps to receive, pump and discharge materials in the workplace	2	18	391Ev3	M/506/5087
<b>F/508/6509</b>	Preparing and operating boom-type mobile elevating work platforms (MEWP) in the workplace	2	14	392Bv3	M/506/4649
<b>A/508/6587</b>	Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace	2	7	400v2	F/506/4672

## Pathway 10: Erecting and Dismantling

Candidates must complete FIVE Mandatory Units.

Mandatory Units			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>M/508/6537</b>	Conforming to general health, safety and welfare in the workplace	1	2	641	A/503/1170
<b>T/508/6538</b>	Conforming to productive working practices in the workplace	2	3	642	J/503/1169
<b>A/508/6525</b>	Slings and hand signalling the movement of suspended loads in the workplace	2	10	402Av1	R/506/3929
<b>F/508/6588</b>	Erecting and dismantling plant (cranes and rigs) in the workplace	2	36	404v2	R/506/4675
<b>Y/508/6533</b>	Moving, handling and storing resources in the workplace	2	5	643	F/503/1171

## Pathway 11: Road Plant or Machinery

Candidates must complete **THREE** Mandatory Units.

Mandatory Units			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	Credit Value	CITB Internal Unit Ref.	CITB RITS Unit Ref.
<b>M/508/6537</b>	Conforming to general health, safety and welfare in the workplace	1	2	641	A/503/1170
<b>T/508/6538</b>	Conforming to productive working practices in the workplace	2	3	642	J/503/1169
<b>J/508/6589</b>	Preparing, operating and controlling operations or road plant or machinery in the workplace	2	49	376v3	T/506/5088

## Additional Units for All Pathways

Candidates may complete any of the Additional Units for any of the Pathways but they will not count towards the qualification.

Additional Units for All Pathways			<i>CITB references and credit values provided for information only</i>		
Unit Ref.	Title	Level	<i>Credit Value</i>	<i>CITB Internal Unit Ref.</i>	<i>CITB RITS Unit Ref.</i>
<b>Y/508/6533</b>	Moving, handling and storing resources in the workplace	2	5	643	F/503/1171
<b>F/508/6526</b>	Operating plant or machinery for non-operational activities in the workplace	2	10	659	L/505/0175

## Centre Requirements

Centres must be approved to offer this qualification. If your centre is not approved please complete and submit form **ProQual Additional Qualification Approval Application**.

### Staff

Staff delivering this qualification must be appropriately qualified and/or occupationally competent.

### Assessors/Internal Quality Assurance

Assessors for each 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.

Assessors and internal quality assurance verifiers for competence-based units or qualifications will normally need to hold appropriate assessor or internal quality assurance qualifications.

## Support for Candidates

Materials produced by centres to support candidates should:

- enable them to track their achievements as they progress through the learning outcomes and assessment criteria;
- provide information on where ProQual's policies and procedures can be viewed;
- provide a means of enabling Internal and External Quality Assurance staff to authenticate evidence

## Links to National Standards / NOS mapping

National Occupational Standards (NOS) are owned by a Sector Skills Council or Standard Setting Body and they describe the skills, knowledge and understanding needed to undertake a particular task or job at different levels of competence.

The structure and units of this qualification are based on NOS for the construction sector developed by CITB.

## Assessment

This qualification is competence-based, candidates must demonstrate the level of competence described in the units. Assessment is the process of measuring a candidate's skill, knowledge and understanding against the standards set in the qualification.

The qualifications must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment, and it must be internally assessed by an appropriately experienced and qualified assessor.

Each candidate is required to produce a portfolio of evidence which demonstrates their achievement of all of the learning outcomes and assessment criteria for each unit.

- Evidence can include:
- observation report by assessor
  - assignments/projects/reports
  - professional discussion
  - witness testimony
  - candidate product
  - worksheets
  - record of oral and written questioning
  - Recognition of Prior Learning

**Learning outcomes** set out what a candidate is expected to know, understand or be able to do.

**Assessment criteria** specify the standard a candidate must meet to show the learning outcome has been achieved.

Learning outcomes and assessment criteria can be found from page 22.

**Additional information** for assessment and requirements for unit **endorsements** where relevant is included after all of the learning outcomes and assessment criteria for each unit.

## Internal Quality Assurance

An internal quality assurance verifier confirms that assessment decisions made in centres are made by competent and qualified assessors, that they are the result of sound and fair assessment practice and that they are recorded accurately and appropriately.

## Adjustments to Assessment

Adjustments to standard assessment arrangements are made on the individual needs of candidates. ProQual's Reasonable Adjustments Policy and Special Consideration Policy sets out the steps to follow when implementing reasonable adjustments and special considerations and the service that ProQual provides for some of these arrangements.

Centres should contact ProQual for further information or queries about the contents of the policy.

## Results Enquiries and Appeals

All enquiries relating to assessment or other decisions should be dealt with by centres, with reference to ProQual's Enquiries and Appeals Procedures.

## Certification

Candidates who achieve the requirements for this qualification will be awarded:

- A certificate listing all units achieved, and
- A certificate giving the full qualification title -

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### Claiming certificates

Centres may claim certificates for candidates who have been registered with ProQual and who have successfully achieved the qualification. All certificates will be issued to the centre for successful candidates.

### Unit certificates

If a candidate does not achieve all of the units required for a qualification, the centre may claim a unit certificate for the candidate which will list all of the units achieved.

### Replacement certificates

If a replacement certificate is required a request must be made to ProQual in writing. Replacement certificates are labelled as such and are only provided when the claim has been authenticated. Refer to the Fee Schedule for details of charges for replacement certificates.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Conforming to general health, safety and welfare in the workplace</b>	
<b>Unit Number:</b>	M/508/6537	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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	Use health and safety control equipment safely to carry out the activity in accordance with legislation and organisational requirements.
	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.
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Conforming to general health, safety and welfare in the workplace.	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
2 continued	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.
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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Conforming to general health, safety and welfare in the workplace.</b>	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Conforming to general health, safety and welfare in the workplace.</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector Subject Area	05.2 Building and Construction
Availability for use	Shared unit
Credit value	2
Unit guided learning hours	7

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Conforming to productive working practices in the workplace</b>	
<b>Unit Number :</b>	T/508/6538	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Conforming to productive working practices in the workplace</b>
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>
	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.
	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.

<b>Title:</b>	<b>Conforming to Productive Working Practices in the Workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector Subject Areas	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	3
Unit guided learning hours	10

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating compact cranes to lift and transfer loads in the workplace</b>	
<b>Unit Number:</b>	R/508/6479	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating compact cranes to lift and transfer loads in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	4.3	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: <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	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating compact cranes to lift and transfer loads in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating compact cranes to lift and transfer loads in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating compact cranes to lift and transfer loads in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</u></p> <p><b>One</b> of the following endorsements required:</p> <ul style="list-style-type: none"> <li>Compact crane – static stabilisers</li> <li>Compact crane – mobile industrial</li> <li>Compact crane – luffing static</li> <li>Compact crane – 360 degree pick and carry</li> </ul>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	30
Unit guided learning hours	100

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating pedestrian operated tower cranes to lift and transfer loads in the workplace</b>
<b>Unit Number:</b>	J/508/6480
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>
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>
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating pedestrian operated tower cranes to lift and transfer loads in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating pedestrian operated tower cranes to lift and transfer loads in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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.
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>

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating pedestrian operated tower cranes to lift and transfer loads in the workplace</b>	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating pedestrian operated tower cranes to lift and transfer loads in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction)</u></p> <p><b>One</b> of the following endorsements required:          Pedestrian operated tower crane          Pedestrian operated tower crane inclined jib</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	30
Unit guided learning hours	100

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating excavator cranes to lift and transfer loads in the workplace</b>
<b>Unit Number:</b>	R/508/6482
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating excavator cranes to lift and transfer loads in the workplace</b>	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating excavator cranes to lift and transfer loads in the workplace</b>	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating excavator cranes to lift and transfer loads in the workplace</b>	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating excavator cranes to lift and transfer loads in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	30
Unit guided learning hours	100

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating telescopic handlers to lift and transfer loads in the workplace</b>
<b>Unit Number:</b>	F/508/6493
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating telescopic handlers to lift and transfer loads in the workplace</b>	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating telescopic handlers to lift and transfer loads in the workplace</b>	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating telescopic handlers to lift and transfer loads in the workplace</b>	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
<p>8 Comply with the given contract information to lift, transfer and place loads using telescopic handlers to the required specification.</p>	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>
	8.6	<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>
	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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating telescopic handlers to lift and transfer loads in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</u></p> <p><b>One</b> of the following endorsements required:</p> <p>Telescopic handler industrial telescope          Telescopic handler up to 9 metres          Telescopic handler all sizes          Telescopic handler all sizes excluding 360 degree          Telescopic handler all sizes including 360 degree</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	25
Unit guided learning hours	83

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating lorry loaders or knuckle booms to lift and transfer loads in the workplace</b>	
<b>Unit Number:</b>	D/508/6484	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating lorry loaders or knuckle booms to lift and transfer loads in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating lorry loaders or knuckle booms to lift and transfer loads in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating lorry loaders or knuckle booms to lift and transfer loads in the workplace	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating lorry loaders or knuckle booms to lift and transfer loads in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	30
Unit guided learning hours	100

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating trailer-mounted concrete pumps to receive, pump and discharge materials in the workplace</b>
<b>Unit Number:</b>	H/508/6504
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating trailer-mounted concrete pumps to receive, pump and discharge materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating trailer-mounted concrete pumps to receive, pump and discharge materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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, 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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating trailer-mounted concrete pumps to receive, pump and discharge materials in the workplace	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
<p>8 Comply with the given contract information to receive, pump and discharge materials using concrete pumps to the required specification.</p>	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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating trailer-mounted concrete pumps to receive, pump and discharge materials in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit Credit value	18
Unit guided learning hours	60

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating boom-type mobile elevating work platforms (MEWP) in the workplace</b>	
<b>Unit Number:</b>	F/508/6509	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating boom-type mobile elevating work platforms (MEWP) in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating boom-type mobile elevating work platforms (MEWP) in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 continued	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>

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating boom-type mobile elevating work platforms (MEWP) in the workplace</b>	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating boom-type mobile elevating work platforms (MEWP) in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</u></p> <p><b>One</b> of the following endorsements required:</p> <p>Mobile elevated working platform book vehicle mounted Mobile elevated platform boom self-propelled</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Credit value	14
Unit guided learning hours	47

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Slinging and hand signalling the movement of suspended loads in the workplace</b>	
<b>Unit Number:</b>	A/508/6525	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Slinging and hand signalling the movement of suspended loads in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Slinging and hand signalling the movement of suspended loads in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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 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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Slinging and hand signalling the movement of suspended loads in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
<p>8 Comply with the given contract information to prepare to and sling and signal suspended loads for movement to the required specification.</p>	8.1	<p>Demonstrate the following work skills when preparing to and slinging and signalling loads:</p> <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	<p>Use and maintain lifting accessories, lifting aids and equipment.</p>
	8.3	<p>Inspect and prepare lifting accessories prior to slinging.</p>
	8.4	<p>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:</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>
	8.5	<p>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>
	8.6	<p>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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Slinging and hand signalling the movement of suspended loads in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
8 Continued	8.7	<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>
	8.8	<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>
	8.9	Describe the needs of other occupations and how to communicate within a team when preparing to and slinging and signalling loads.
	8.10	Describe how to maintain the lifting accessories, lifting aids and signalling and communication equipment used to sling and signal loads.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Slinging and hand signalling the movement of suspended loads in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</u></p> <p>The following endorsement required (i.e. own area of work):</p> <p>Slinger signaller – erector and dismantler only</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	10
Unit guided learning hours	33

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Operating plant or machinery for non-operational activities in the workplace</b>	
<b>Unit Number:</b>	F/508/6526	
<b>Learning outcomes</b> The learner will be able to:	<b>Assessment criteria</b> The learner can:	
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>
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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Operating plant or machinery for non-operational activities in the workplace</b>	
<b>Learning outcomes</b> The learner will be able to:	<b>Assessment criteria</b> The learner can:	
<b>4</b> 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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Operating plant or machinery for non-operational activities in the workplace	
Learning outcomes	Assessment criteria	
The learner will be able to:	The learner can:	
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: – consumables – hand tools, ancillary equipment and/or accessories.
	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.
	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: – types of progress charts, timetables and estimated times – organisational procedures for reporting circumstances which will affect the work programme.

## Units – Learning Outcomes and Assessment Criteria

Title:	Operating plant or machinery for non-operational activities in the workplace	
Learning outcomes	Assessment criteria	
The learner will be able to:	The learner can:	
<p>8 Comply with the given contract information to operate plant or machinery for non-operational activities to the required specification.</p>	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, (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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Operating plant or machinery for non-operational activities in the workplace	
Learning outcomes	Assessment criteria	
The learner will be able to:	The learner can:	
8 Continued	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> <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> <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>
	8.8	Describe the needs of other occupations and how to effectively communicate within a team when operating plant or machinery for non-operational activities.
	8.9	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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Operating plant or machinery for non-operational activities in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills 'Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</u></p> <p><b>Two</b> of the following endorsements required:</p> <p>Hand-operated power tools            Static machinery            Pedestrian controlled power equipment            Tracked plant            Wheeled plant            Rollers</p>
Sector Subject Areas	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	10
Unit guided learning hours	33

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating road/rail adapted plant in the workplace</b>	
<b>Unit Number:</b>	J/508/6527	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating road/rail adapted plant in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating road/rail adapted plant in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating road/rail adapted plant in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
<p>8 Comply with the given contract information to prepare for and operate road/rail plant to the required specification.</p>	8.1	<p>Demonstrate the following work skills when preparing to use and operate road/rail plant:</p> <ul style="list-style-type: none"> <li>– preparing, manoeuvring, configuring, placing, travelling, negotiating, setting, operating and removing.</li> </ul>
	8.2	<p>Use and maintain hand tools, ancillary equipment, attachments and/or accessories.</p>
	8.3	<p>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:</p> <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	<p>Shut down and secure road/rail plant.</p>
	8.5	<p>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>
	8.6	<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>

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating road/rail adapted plant in the workplace</b>	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
8 Continued	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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating road/rail adapted plant in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</u></p> <p><b>One</b> of the following endorsements required:</p> <ul style="list-style-type: none"> <li>Road rail – forward tipping dumper</li> <li>Road rail – MEWP scissor</li> <li>Road rail – MEWP boom</li> <li>Road rail – crawler tractor/dozer</li> <li>Road rail – knuckle boom crane</li> <li>Road rail – dump truck – articulated chassis</li> <li>Road rail – dump truck – rigid chassis</li> <li>Road rail – excavator 360 degree wheeled</li> <li>Road rail – excavator 360 degree tracked</li> <li>Road rail – excavator crane</li> <li>Road rail – crane</li> <li>Road rail – rough terrain forklift truck</li> <li>Road rail – telescopic handler</li> <li>Road rail – agricultural tractor</li> </ul>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	8
Unit guided learning hours	26

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating plant or machinery attachments in the workplace</b>	
<b>Unit Number:</b>	L/508/6528	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating plant or machinery attachments in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	4.2	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> <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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating plant or machinery attachments in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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.
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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating plant or machinery attachments in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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.
	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 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>
	8.7	<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>

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating plant or machinery attachments in the workplace</b>	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
8 Continued	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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating plant or machinery attachments in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</u>  <b>One</b> of the following endorsements required:</p> <ul style="list-style-type: none"> <li>Rail thimble</li> <li>Rail flail</li> <li>Rail ballast brush</li> <li>Rail ballast/material movement vacuum unit</li> <li>Rail hydraulic rail beam</li> <li>Rail hydraulic sleeper grab</li> <li>Rail trailer</li> <li>Rail tamper</li> <li>Rail vacuum lifter</li> <li>Rail grapple/log grab</li> <li>Auger</li> <li>Sweeper</li> <li>Pecker/hammer</li> <li>Mower</li> <li>Grab</li> <li>Roller</li> <li>Mobile work platform</li> <li>Fork</li> <li>Lifthook</li> <li>Bucket</li> <li>Lifting jib</li> <li>Crusher</li> </ul>
Sector subject area	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	7
Unit guided learning hours	23

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Moving, handling and storing resources in the workplace</b>	
<b>Unit Number:</b>	Y/508/6533	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Moving, handling and storing resources in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
3 continued	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 <b>and/or</b> 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.
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Moving, handling and storing resources in the workplace	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
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.
	5.5	Explain why the disposal of waste should be carried 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 <b>and/or</b> 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>
	7.3	Describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them when moving, handling <b>and/or</b> storing occupational resources.
	7.4	Describe the needs of other occupations when moving, handling <b>and/or</b> storing resources.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Moving, handling and storing resources in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector Subject Areas	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	5
Unit guided learning hours	17

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating crawler cranes above 10 tonnes to lift and transfer loads in the workplace</b>
<b>Unit Number:</b>	H/508/6566
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating crawler cranes above 10 tonnes to lift and transfer loads in the workplace</b>	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating crawler cranes above 10 tonnes to lift and transfer loads in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating crawler cranes above 10 tonnes to lift and transfer loads in the workplace</b>	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating crawler cranes above 10 tonnes to lift and transfer loads in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	80
Unit guided learning hours	265

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating tower cranes to lift and transfer loads in the workplace</b>	
<b>Unit Number:</b>	K/508/6567	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating tower cranes to lift and transfer loads in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating tower cranes to lift and transfer loads in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating tower cranes to lift and transfer loads in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating tower cranes to lift and transfer loads in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</u></p> <p><b>One</b> of the following endorsements required:  Tower crane trolley jib  Tower crane luffing jib</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	80
Unit guided learning hours	267

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating mobile cranes to lift and transfer loads in the workplace</b>
<b>Unit Number:</b>	M/508/6568
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating mobile cranes to lift and transfer loads in the workplace</b>	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating mobile cranes to lift and transfer loads in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating mobile cranes to lift and transfer loads in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating mobile cranes to lift and transfer loads in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</u></p> <p><b>One</b> of the following endorsements required:          Mobile crane blocked duties          Mobile crane pick and carry duties only          Mobile crane all duties</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	95
Unit guided learning hours	317

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating crawler-tractor side booms to lift and transfer loads in the workplace</b>	
<b>Unit Number:</b>	T/508/6569	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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 Organise with others the sequence and operation in which lifting operations using side 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 side booms.
3 Know how to comply with relevant legislation and official guidance when lifting and transferring loads 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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating crawler-tractor side booms to lift and transfer loads in the workplace	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
4 Maintain safe and healthy working practices when preparing for and carrying 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>
	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 Request and select the required quantity and quality of resources to prepare for and carry out lifting operations using side booms.	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating crawler-tractor side booms to lift and transfer loads in the workplace</b>	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
5 Continued	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 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>

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating crawler-tractor side booms to lift and transfer loads in the workplace</b>	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating crawler-tractor side booms to lift and transfer loads in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	50
Unit guided learning hours	160

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating draglines to extract ground and/or loose materials in the workplace</b>	
<b>Unit Number:</b>	K/508/6570	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating draglines to extract ground and/or loose materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating draglines to extract ground and/or loose materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating draglines to extract ground and/or loose materials in the workplace</b>	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating draglines to extract ground and/or loose materials in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit Credit value	60
Unit guided learning hours	200

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace</b>	
<b>Unit Number:</b>	M/508/6571	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
<p>4 Maintain safe and healthy working practices when preparing for and carrying out extracting and excavating operations using 180 degree excavators.</p>	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>
	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.
<p>5 Request and select the required quantity and quality of resources to prepare for and carry out extracting and excavating operations using 180 degree excavators.</p>	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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.
	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 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>
	8.6	<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>

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace</b>	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
8 Continued	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.

<b>Title:</b>	<b>Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace</b>	
<b>Additional information about this unit</b>		
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction:</u></p> <p><b>One</b> of the following endorsements is required:</p> <p>Excavator 180 degree wheeled below 5 tonne Excavator 180 degree wheeled above 5 tonne</p>	
Sector subject areas	5.2 Building and Construction	
Availability for use	Shared unit	
Unit Credit value	80	
Unit guided learning hours	266	

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating tracked loading shovels to extract ground and loose materials in the workplace</b>
<b>Unit Number:</b>	T/508/6572
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating tracked loading shovels to extract ground and loose materials in the workplace</b>	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating tracked loading shovels to extract ground and loose materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating tracked loading shovels to extract ground and loose materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating tracked loading shovels to extract ground and loose materials in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit Credit value	80
Unit guided learning hours	266

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating motorised scrapers to extract, transport and distribute materials in the workplace</b>	
<b>Unit Number:</b>	A/508/6573	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating motorised scrapers to extract, transport and distribute materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
<p>4 Maintain safe and healthy working practices when preparing for and carrying out extraction and distribution operations using motorised scrapers.</p>	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>
	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.
<p>5 Request and select the required quantity and quality of resources to prepare for and carry out extraction and distribution operations using motorised scrapers.</p>	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating motorised scrapers to extract, transport and distribute materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating motorised scrapers to extract, transport and distribute materials in the workplace	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
<p>8 Comply with the given contract information to extract and distribute materials using motorised scrapers to the required specification.</p>	8.1	<p>Demonstrate the following work skills when preparing for and extracting and distributing loose materials using motorised scrapers:</p> <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	<p>Prepare, position, set up and operate motorised scrapers to given working instructions</p> <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	<p>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 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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating motorised scrapers to extract, transport and distribute materials in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit Credit value	80
Unit guided learning hours	267

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating trenchers to extract ground and/or loose materials in the workplace</b>
<b>Unit Number:</b>	F/508/6574
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating trenchers to extract ground and/or loose materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating trenchers to extract ground and/or loose materials in the workplace</b>	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating trenchers to extract ground and/or loose materials in the workplace</b>	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating trenchers to extract ground and/or loose materials in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit Credit value	50
Unit guided learning hours	160

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating 360 degree excavators to extract ground, face and/or loose materials in the workplace</b>
<b>Unit Number:</b>	J/508/6575
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating 360 degree excavators to extract ground, face and/or loose materials in the workplace</b>	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating 360 degree excavators to extract ground, face and/or loose materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating 360 degree excavators to extract ground, face and/or loose materials in the workplace</b>	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating 360 degree excavators to extract ground, face and/or loose materials in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</u></p> <p><b>One</b> of the following endorsements required:</p> <p>Excavator 360 degree below 10 tonne tracked  Excavator 360 degree below 10 tonne wheeled  Excavator 360 degree above 10 tonne tracked  Excavator 360 degree above 10 tonne wheeled</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit Credit value	80
Unit guided learning hours	266

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace</b>	
<b>Unit Number:</b>	L/508/6576	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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.
	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 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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating crawler tractor dozers to carry out dozer operations in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</u></p> <p><b>One</b> of the following endorsements required:</p> <p>Extract Excavate Construct/form Lay/distribute</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit Credit value	80
Unit guided learning hours	266

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating draglines to excavate ground materials in the workplace</b>	
<b>Unit Number:</b>	R/508/6577	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating draglines to excavate ground materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating draglines to excavate ground materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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 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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating draglines to excavate ground materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
<p>8 Comply with the given contract information to excavate materials using draglines to the required specification.</p>	8.1	<p>Demonstrate the following work skills when preparing for and excavating ground using draglines:</p> <ul style="list-style-type: none"> <li>– checking, adjusting, communicating, operating, manoeuvring, positioning, excavating, measuring and removing.</li> </ul>
	8.2	<p>Use and maintain hand tools, ancillary equipment and/or accessories.</p>
	8.3	<p>Prepare, position, set up and operate draglines to given working instructions to:</p> <ul style="list-style-type: none"> <li>– excavate ground</li> <li>– load or stockpile excavated ground and/or loose materials.</li> </ul>
	8.4	<p>Shut down and secure draglines.</p>
	8.5	<p>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 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>
	8.6	<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	<p>Describe the needs of other occupations and how to effectively communicate within a team when preparing for and carrying out excavating operations.</p>
	8.8	<p>Describe how to maintain the plant and machinery, hand tools, ancillary equipment and accessories used to excavate materials.</p>

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating draglines to excavate ground materials in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidelines	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit Credit value	60
Unit guided learning hours	200

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating 360 degree excavators to excavate ground in the workplace</b>	
<b>Unit Number:</b>	Y/508/6578	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating 360 degree excavators to excavate ground in the workplace</b>	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating 360 degree excavators to excavate ground in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating 360 degree excavators to excavate ground in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating 360 degree excavators to excavate ground in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidelines	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</u></p> <p><b>One</b> of the following endorsements required:</p> <ul style="list-style-type: none"> <li>Excavator 360 degree below 10 tonne tracked</li> <li>Excavator 360 degree below 10 tonne wheeled</li> <li>Excavator 360 degree above 10 tonne tracked</li> <li>Excavator 360 degree above 10 tonne wheeled</li> </ul>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit Credit value	80
Unit guided learning hours	266

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating trenchers to excavate ground in the workplace</b>	
<b>Unit Number:</b>	D/508/6579	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating trenchers to excavate ground in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating trenchers to excavate ground in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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 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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating trenchers to excavate ground in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating trenchers to excavate ground in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidelines	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit Credit value	50
Unit guided learning hours	215

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating tracked loading shovels to excavate ground and loose materials in the workplace</b>	
<b>Unit Number:</b>	R/508/6580	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating tracked loading shovels to excavate ground and loose materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
<p>4 Maintain safe and healthy working practices when preparing for and carrying out excavating operations using tracked loading shovels.</p>	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>
	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.
<p>5 Request and select the required quantity and quality of resources to prepare for and carry out excavating operations using tracked loading shovels.</p>	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating tracked loading shovels to excavate ground and loose materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating tracked loading shovels to excavate ground and loose materials in the workplace	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating tracked loading shovels to excavate ground and loose materials in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidelines	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit Credit value	80
Unit guided learning hours	267

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating graders to form and shape ground and/or loose materials in the workplace</b>
<b>Unit Number:</b>	Y/508/6581
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating graders to form and shape ground and/or loose materials in the workplace</b>	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating graders to form and shape ground and/or loose materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating graders to form and shape ground and/or loose materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating graders to form and shape ground and/or loose materials in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit Credit value	70
Unit guided learning hours	233

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating formwork rigs to construct and form in the workplace</b>	
<b>Unit Number:</b>	D/508/6582	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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 preparation and 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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating formwork-rigs to construct and form in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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>
	5.3	Describe how the resources should be used correctly and how problems associated with the resources are reported.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating formwork rigs to construct and form in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 continued	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.
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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating formwork rigs to construct and form in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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.
	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 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>
	8.6	<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>
	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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating formwork rigs to construct and form in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</u></p> <p><b>One</b> of the following endorsements required:</p> <p>Formwork rig slipform vertical          Formwork rig slipform horizontal          Formwork rig climbing/jumping</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	52
Unit guided learning hours	173

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating truck-mounted boom concrete pumps to receive, pump and discharge materials in the workplace</b>
<b>Unit Number:</b>	H/508/6583
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating truck-mounted boom concrete pumps to receive, pump and discharge materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating truck-mounted boom concrete pumps to receive, pump and discharge materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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, 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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating truck-mounted boom concrete pumps to receive, pump and discharge materials in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating truck-mounted boom concrete pumps to receive, pump and discharge materials in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared units
Unit Credit value	70
Unit guided learning hours	233

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating soil stabilisers to lay and distribute materials in the workplace</b>
<b>Unit Number:</b>	K/508/6584
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating soil stabilisers to lay and distribute materials in the workplace</b>	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating soil stabilisers to lay and distribute materials in the workplace</b>	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating soil stabilisers to lay and distribute materials in the workplace</b>	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
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>
	8.6	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating soil stabilisers to lay and distribute materials in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</u></p> <p><b>One</b> of the following endorsements required:</p> <p>Soil stabiliser self-propelled Soil stabiliser towed</p>
Sector subject areas	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	40
Unit guided learning hours	133

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating plant or machinery from a floating vessel in the workplace</b>
<b>Unit Number:</b>	M/508/6585
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating plant or machinery from a floating vessel in the workplace</b>	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
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>
	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.
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>

## Units – Learning Outcomes and Assessment Criteria

Title:	<b>Preparing and operating plant or machinery from a floating vessel in the workplace</b>	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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.
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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating plant or machinery from a floating vessel in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
<p>8 Comply with the given contract information to carry out plant or machinery operations from a floating vessel to the required specification.</p>	8.1	<p>Demonstrate the following work skills when preparing for and operating plant or machinery from a floating vessel:</p> <ul style="list-style-type: none"> <li>– checking, setting up, adjusting, communicating, operating, manoeuvring, controlling, positioning and sea fastening.</li> </ul>
	8.2	<p>Use and maintain hand tools, ancillary equipment, accessories and lifting accessories.</p>
	8.3	<p>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:</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>
	8.4	<p>Shut down and secure the plant or machinery attached to the floating vessel.</p>
	8.5	<p>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>
	8.6	<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>

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating plant or machinery from a floating vessel in the workplace</b>	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
8 Continued	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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating plant or machinery from a floating vessel in the workplace</b>	
<b>Additional information about this unit</b>		
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p><u>Workplace evidence of skills cannot be simulated except for assessment criteria 4.6.</u></p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</u></p> <p><b>Six</b> 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>	
Sector subject areas	5.2 Building and Construction	
Availability for use	Shared unit	
Unit credit value	36	
Unit guided learning hours	125	

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace</b>	
<b>Unit Number:</b>	A/508/6587	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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>
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
4 Continued	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, 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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
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.
	7.6	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, 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>
	7.7	<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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</u></p> <p><b>One</b> of the following endorsements required:</p> <ul style="list-style-type: none"> <li>Generators</li> <li>Pumps</li> <li>Pedestrian operated plant or machines</li> <li>Mixers</li> <li>Compressors</li> <li>Self powered tools</li> </ul>
Sector subject area	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	7
Unit guided learning hours	23

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Erecting and dismantling plant (cranes and rigs) in the workplace</b>	
<b>Unit Number:</b>	F/508/6588	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Erecting and dismantling plant (cranes and rigs) in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Erecting and dismantling plant (cranes and rigs) in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Erecting and dismantling plant (cranes and rigs) in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	8.4	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>– 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>
	8.5	<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>
	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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Erecting and dismantling plant (cranes and rigs) in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment and in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment-</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p><u>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</u></p> <p><b>One</b> of the following endorsements required:</p> <ul style="list-style-type: none"> <li>Mobile crane</li> <li>Crawler crane</li> <li>Mobile tower crane</li> <li>Self-erect equipment</li> <li>Piling rig</li> <li>Demolition rig</li> <li>Drilling rig</li> </ul>
Sector subject area	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	36
Unit guided learning hours	130

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing, operating and controlling operations of road plant or machinery in the workplace</b>	
<b>Unit Number:</b>	J/508/6589	
<b>Learning outcomes</b> <i>The learner will be able to:</i>	<b>Assessment criteria</b> <i>The learner can:</i>	
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 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.
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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing, operating and controlling operations of road plant or machinery in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
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>
	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.

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing, operating and controlling operations of road plant or machinery in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
5 Continued	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, 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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing, operating and controlling operations of road plant or machinery in the workplace	
Learning outcomes	Assessment criteria	
<i>The learner will be able to:</i>	<i>The learner can:</i>	
<p>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.</p>	8.1	<p>Demonstrate the following work skills when preparing, operating and controlling road plant or machinery:</p> <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	<p>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>– 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>
	8.3	<p>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>
	8.4	<p>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>

## Units – Learning Outcomes and Assessment Criteria

Title:	Preparing, operating and controlling operations of road plant or machinery in the workplace	
Learning outcomes <i>The learner will be able to:</i>	Assessment criteria <i>The learner can:</i>	
8 Continued	8.5	Safely use plant or machinery, tools, ancillary equipment and/or accessories.
	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.

## Units – Learning Outcomes and Assessment Criteria

<b>Title:</b>	<b>Preparing, operating and controlling operations of road plant or machinery in the workplace</b>
<b>Additional information about this unit</b>	
Assessment Guidance	<p>This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment.</p> <p>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.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against the endorsements detailed within the relevant NVQ Structure.</p> <p>ProQual Level 2 NVQ Diploma in Plant Operations (Construction):</p> <p>One of the following endorsements required:</p> <p>Chipper Paver Spreader Planer Tanker Sprayer</p>
Sector Subject area	5.2 Building and Construction
Availability for use	Shared unit
Unit credit value	49
Unit guided learning hours	40



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