

Preparing and operating excavator cranes to lift and transfer loads in the workplace

Reference : A/506/4606

Level : Level 2

Credit Value : 30

Guided Learning Hours : 100

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

Learning Outcomes		Assessment Criteria
The Learner Will		The Learner Can
1	Interpret the given information relating to the preparation and use of excavator cranes to lift, transfer and place loads.	<p>1.1 - Interpret and extract relevant information from drawings, specifications, schedules, method statements, lift plans, risk assessments and manufacturers' information.</p> <p>1.2 - Comply with information and/or instructions derived from risk assessments and method statements.</p> <p>1.3 - Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented.</p> <p>1.4 - Describe different types of information, their source and how they are interpreted in relation to:</p> <ul style="list-style-type: none"> - drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and current regulations governing the operation of excavator cranes to lift and transfer loads.
2	Organise with others the sequence and operation in which lifting operations using excavator cranes are to be carried out.	<p>2.1 - Organise the work according to given information or instructions.</p> <p>2.2 - Describe how to communicate ideas between team members.</p> <p>2.3 - Organise and communicate with team members and other associated occupations.</p> <p>2.4 - Describe how to organise resources prior to and during lifting operations with excavator cranes.</p>
3	Know how to comply with relevant legislation and official guidance when lifting and transferring loads using excavator cranes.	<p>3.1 - Describe their responsibilities regarding potential accidents, health hazards and the environment whilst working:</p> <ul style="list-style-type: none"> - 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. <p>3.2 - Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.</p> <p>3.3 - Explain what the accident reporting procedures are and who is responsible for making reports.</p>
4	Maintain safe and healthy working practices when preparing for and carrying out lifting operations using excavator cranes.	<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 lifting operations.</p> <p>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:</p> <ul style="list-style-type: none"> - safe use and storage of plant or machinery - safe use and storage of tools and equipment - safe use and storage of lifting accessories - specific risks to health. <p>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:</p>

		<ul style="list-style-type: none"> - collective protective measures - personal protective equipment (PPE) - respiratory protective equipment (RPE) - local exhaust ventilation (LEV). <p>4.4 - Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions.</p> <p>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 lifting operations using excavator cranes.	<p>5.1 - Request and select resources associated with excavator cranes in relation to consumables, materials, tools, ancillary equipment and/or accessories.</p> <p>5.2 - Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources, and how they should be used correctly, relating to:</p> <ul style="list-style-type: none"> - consumables, lubricants and fuels - attachments and lifting accessories - hand tools, ancillary equipment and accessories. <p>5.3 - Describe how the resources should be used correctly and how problems associated with the resources are reported.</p> <p>5.4 - Explain why the organisational procedures have been developed and how they are used for the selection of required resources.</p> <p>5.5 - Describe any potential hazards associated with the resources and method of work.</p> <p>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.</p>
6	Minimise the risk of damage to the work and surrounding area when preparing to and lifting and transferring loads.	<p>6.1 - Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.</p> <p>6.2 - Prevent damage and maintain a clean work space.</p> <p>6.3 - Dispose of waste in accordance with current legislation.</p> <p>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.</p> <p>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.</p>
7	Complete the work within the allocated time when preparing to and lifting and transferring loads.	<p>7.1 - Demonstrate completion of the work within the allocated time.</p> <p>7.2 - Describe the purpose of the work programme and describe why deadlines should be kept in relation to:</p> <ul style="list-style-type: none"> - types of progress charts, timetables and estimated times - organisational procedures for reporting circumstances which will affect the work programme.
8	Comply with the given contract information to lift, transfer and place loads using excavator cranes to the required specification.	<p>8.1 - Demonstrate the following work skills when preparing for, lifting, transferring and placing loads using excavator cranes:</p> <ul style="list-style-type: none"> - checking, adjusting, communicating, operating, manoeuvring, positioning, lifting, transferring and setting down. <p>8.2 - Use and maintain hand tools, ancillary equipment and/or accessories.</p> <p>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.</p> <p>8.4 - Shut down and secure excavator cranes.</p> <p>8.5 - Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:</p> <ul style="list-style-type: none"> - identify the characteristics of the crane for the lifting and transferring operation - identify valid certification for maintenance, inspection and thorough examination - lift and transfer people - carry out function checks for lifting and transferring loads - prepare, set up and reconfigure for various loads and locations - carry out pre-operational checks for obstructions, stability, safety and security of the work and surrounding area - identify characteristics, type, weight and position of loads for lifting

and transferring.

8.6 - Describe how to apply safe and healthy work practices, follow procedures, report problems and establish authority needed to rectify, to:- recognise and determine when specific skills and knowledge are required and report accordingly

- secure and balance loads for lifting
- lift, remove and transfer loads
- position, place and set down loads
- confirm load stability, security and release
- attach and remove guide ropes and aids
- be on the public highway
- shut down and secure the crane
- use hand tools and ancillary equipment
- use, handle and store lifting accessories.

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.

Assessment guidance and/or requirements : This unit must be assessed in a work environment, in accordance with the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment. Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy. Workplace evidence of skills cannot be simulated.