



Excellect 209 (PTY) LTD Trading as

NICORE

Training and Development

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OPERATE A TOWER CRANE

US 116255

NQF Level: 02

Credits: 20

COURSE OVERVIEW



PURPOSE OF THE UNIT STANDARD

The qualifying learner is capable of:

Demonstrating an integrated practical and theoretical grounding in Crane Operations according to safe handling and maintenance practices in compliance with crane manufacturer's and legislated standards.

The contribution to The National Skills Development Strategy is the key developmental interface between learners and new competencies to be achieved.

Learners who master the applied competence described in this unit standard will contribute to the development of a professional community of Civil Engineering Construction Crane Operators who are able to competently use science and technology when applying operation techniques

The contribution to socio-economic transformation is that learners will be able to undergo RPL-assessment and thereby receive recognition for previous learning and experience. This in turn will enhance the employability and career prospects of learners employed in this sector.

Specific Outcomes and Assessment Criteria:

SPECIFIC OUTCOME 1

Demonstrate knowledge of the functions of a tower crane.

ASSESSMENT CRITERIA

1. The main functions of Tower Crane's are explained in terms of manufacturer's specifications.
2. The operation of all major components is explained in terms of their functions.
3. All safety features and warning devices on the crane are identified, and their purposes explained in accordance with manufacturer's specifications.
4. The maximum operating capacities are explained in terms of the designed crane capabilities.
5. Warnings from crane indicators and gauges are explained according to manufacturer's specifications.
6. Corrective actions are described or demonstrated in terms of neutralising warnings received.

SPECIFIC OUTCOME 2

Identify the safety and suitability of crane.

ASSESSMENT CRITERIA

1. Demonstrate the ability to identify the suitability of the crane prior to utilisation.
2. Demonstrate ability to assess operational capability of lifting equipment (e.g. correct SWL of slings etc).
3. Demonstrate an understanding of the influence of load/range characteristics, manufacturers' requirements and environmental conditions.

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4. Demonstrate an understanding of what constitutes safety in the broader working environment, and when operating a tower crane in compliance with statutory regulations.

SPECIFIC OUTCOME 3

Apply the recognised methods for inspecting and recording the operational fitness of all components of the crane.

ASSESSMENT CRITERIA

1. Pre-operational checks are carried out according to appropriate checklist.
2. Daily and weekly operator maintenance is performed according to the appropriate post-operational checklist and recordkeeping using a logbook
3. Checklist is completed according to worksite procedures and corrective action taken if required, ensuring compliance with manufacturer's specifications.
4. Appropriate measures used to rectify and/or prevent basic faults and defects in the mechanical function of the crane are identified.

SPECIFIC OUTCOME 4

Operate tower crane.

ASSESSMENT CRITERIA

1. The purpose of the various controls is explained in accordance with their designed use.
2. Functions of the various controls are demonstrated in accordance with the manufacturer's specifications.
3. Controls are used to effectively manoeuvre the crane within manufacturer's specifications.
4. Safe working procedures are followed according to manufacturer's specifications, site specific and statutory requirements.
5. Crane performance is monitored and corrective action is taken when necessary, in accordance with manufacturer's specifications.
6. Crane is operated without risk of damage or loss to machine or property, or injury to people.
7. Hazards specific to operating Tower Crane's and ways to minimise these are explained in terms of potential damage to machine and property, and injury to people.
8. Start-up and shutdown procedures are followed according to manufacturer's specifications.
9. Crane is set up according to manufacturer's and company requirements.