

Domain	RIGGING	Unit ID: 982
Title:	Operate overhead or gantry cranes	
Level: 2		Credits:5

Purpose

This unit standard specifies the competencies required to operate overhead or gantry cranes. It includes demonstrating knowledge of the functions of a crane, identifying the safety and suitability of the crane type prior to utilisation, inspecting and recording the operational fitness of the components of a crane, operating an overhead crane in a safe and competent manner and accessing available support systems and emergency services in case of incidents and accidents. This unit standard is intended for those who work in lifting machine operations environment.

Special Notes

1. Entry information:
Prerequisite:
 - *937 - Apply safety rules and regulations in lifting machine operations or demonstrated equivalent knowledge and skills.*
2. This unit standard is limited to work carried out on a standard crane, or with standardised fittings. The applied competence expressed in this standard covers one specific crane of a range of heavy crane types (capacity and functionality) used in familiar operational functions in any industry context, and in a range of environmental conditions (e.g. poor weather).
3. Cranes shall include C30: Overhead Pendant Controlled and C31: Overhead Cab controlled.
4. Attachments shall include S Tandem Lifts and T Special Categories.
5. Assessment evidence may be collected from a real workplace, or an appropriate simulated realistic environment in which lifting machine operations are carried out.
6. All inspection, operation and maintenance procedures associated with the use of tools and equipment shall comply with manufacturers' specifications, guidelines and instructions.
7. Regulations and legislation relevant to this unit standard include the following:
 - Labour Act, No. 11, 2007

- Regulations relating to the Health and Safety of employees at work, 1997 and all subsequent amendment.

Quality Assurance Requirements

This unit standard and others within this subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority and the Namibia Training Authority on www.nta.com.na.

Elements and Performance Criteria

Element 1: Demonstrate knowledge of the functions of a overhead or gantry crane

Performance Criteria

- 1.1 The main functions of an overhead or gantry crane's are explained in terms of manufacturer's specifications.
- 1.2 The operation of all major components is explained in terms of their functions.
- 1.3 All safety features and warning devices on the crane are identified, and their purposes explained in accordance with manufacturer's specifications.
- 1.4 The maximum operating capacities are explained in terms of the designed crane capabilities.
- 1.5 Warnings from crane indicators and gauges are explained according to manufacturer's specifications.
- 1.6 Corrective actions are described or demonstrated in terms of neutralising warnings received.

Element 2: Identify the safety and suitability of the overhead or gantry crane

Performance Criteria

- 2.1 The ability to identify the suitability of the crane prior to utilisation is demonstrated.
- 2.2 Suitability of the crane is identified according to load characteristics, equipment manufacturers' requirements and environmental conditions.

- 2.3 Operational capability of lifting equipment is assessed according to correct Safe Work Load of slings.
- 2.4 The influence of load or range is explained according to load or range characteristics, manufacturers' requirements and environmental conditions.

Element 3: Inspect and record the operational fitness of the components of a overhead or gantry crane

Range

Fault and defects may include but are not limited to structural components, hoisting systems, cab, fastenings, and ropes or chains.

Performance Criteria

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

Element 4: Operate an overhead crane in a safe and competent manner

Performance Criteria

- 4.1 The purpose of the various controls is explained in accordance with their designed use.
- 4.2 Functions of the various controls are demonstrated in line with the manufacturer's specifications.
- 4.3 Controls are used to effectively manoeuvre the crane within manufacturer's specifications.
- 4.4 Safe working procedures are followed according to manufacturer's specifications, site specific and statutory requirements.
- 4.5 Crane performance is monitored and corrective action is taken when necessary, in accordance with manufacturer's specifications.
- 4.6 Crane is operated without risk of damage or loss to machine or property, or injury to people and in line with operating specifications.

- 4.7 Hazards specific to operating overhead or gantry crane and ways to minimise these are explained in terms of potential damage to machine and property, and injury to people.
- 4.8 Start-up and shutdown procedures are followed according to manufacturer's specifications.
- 4.9 Crane is stowed according to manufacturer's and company/works requirements.

Element 5: Access available support systems and emergency services in case of incidents and accidents

Performance Criteria

- 5.1 The most appropriate course of action in relation to the purpose of the various controls is explained in accordance with company procedures.
- 5.2 The handling and storage of the load is explained according to safe working practices.

Registration Data

Subfield:	Lifting, Shifting and Secure Loads
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