

Domain	RIGGING	Unit ID: 969
Title:	Perform a lifting task by using a mobile crane	
Level: 3		Credits: 8

Purpose

This unit standard specifies the competencies required to perform a lifting task by using a mobile crane. It includes identifying, discussing and explaining the use of mobile cranes, planning and preparing to lift and move the load, directing the mobile crane operation to lift and move the load and maintaining, caring and storing equipment. This unit standard is intended for those who work as general lifting machine operators.

Special Notes

1. Entry information:
Prerequisite:
 - *937 - Apply safety rules and regulations in lifting machine operations or demonstrated equivalent knowledge and skills.*
2. For the purpose of learning and assessment mobile cranes include hydraulic cranes, lattice-boom cranes and truck or deck-mounted cranes. Below the hook attachments include but are not limited to chain blocks; lever hoists; air hoists; winches; derricks, slings, rope, shackles, eye bolts, spreader and equalizing beams, clamps, pulley systems, pull lifts, jacks, sliding shoes, rollers, tirsors.
3. Environment contexts under which this unit standards is used include but are not limited to:
 - Manufacturing and engineering (Metals, Plastics, Tyre and Rubber, Electrical Power Generation, Automotive Manufacturing).
 - Chemical and Petrochemical.
 - Mining.
 - Transport (Maritime, Road, Rail and Aviation).
 - Civil Engineering and Construction.
 - Food and Beverages.
 - Other engineering-related industry sectors.
4. Assessment evidence may be collected from a real workplace, or an appropriate simulated realistic environment in which lifting machine operations are carried out.

5. All inspection, operation and maintenance procedures associated with the use of tools and equipment shall comply with manufacturers' specifications, guidelines and instructions.
6. 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: Identify, discuss and explain the use of mobile cranes

Range

Methods and techniques include methods and techniques are related to the type of crane being used and advantages and disadvantages of one method or technique over the other.

Performance Criteria

- 1.1 The types of mobile cranes are identified.
- 1.2 Lifting methods and techniques for using mobile cranes are explained, and their purpose is discussed in terms of safety legislation and work-site practice.
- 1.3 Different applications for mobile cranes are described.
- 1.4 Lifting characteristics of different types of mobile crane are stated.
- 1.5 Common defects on mobile cranes are described and hazards associated with mobile cranes are stated.
- 1.6 The consequences of the unsafe use of mobile cranes, is discussed and explained.
- 1.7 Terms and definitions used are consistent with generally accepted mechanical handling terminology.

- 1.8 Communication techniques during lifting and moving the load are explained in terms of generally accepted industry practice.

Element 2: Plan and prepare to lift and move the load

Range

Resources include mechanical handling equipment, support materials, applicable documentation and personal protective equipment.

Performance Criteria

- 2.1 The planning and preparation of the lifting task is explained, in line with work instructions.
- 2.2 The mobile crane, lifting equipment and resources are correct for the task, available on site by the agreed time, and checked for serviceability in line with regulatory and worksite practices.
- 2.3 Lifting space is cleared, potential obstructions are removed and personnel are notified, prior to the lifting task.
- 2.4 Pre-operational checks are carried out on lifting equipment and tackle, in line with work instructions.

Element 3: Direct the mobile crane operation to lift and move the load

Range

The learner is required to demonstrate competence in lifting, positioning and securing objects (structural steel, timber, pre-cast concrete or other similar materials), machinery and machine components which are commonly handled within a variety of industrial environments.

Performance Criteria

- 3.1 The mobile crane is used in line with manufacturer specifications and standard work-site practice.
- 3.2 Safety precautions are applied and adhered to, in line with legislation applicable to the use of the mobile cranes.
- 3.3 Personnel are allocated to specific positions in order to lift and move the load safely.
- 3.4 The load is inspected for damage and its end position conforms to work instructions as reflected on drawing or job requirement.

Element 4: Maintain, care and store equipment

Range

Recording of information depends on the applicable work-site practice and may vary according specific industry sectors.

Performance Criteria

- 4.1 Lifting equipment is cleaned and stored in line with regulatory requirements and worksite practice.
- 4.2 The proper care and storage procedures for lifting equipment are explained in line with work site practices.
- 4.3 Information regarding the use of lifting equipment is recorded in line with regulations and accepted worksite practice.

Registration Data

Subfield:	Lifting, Shifting and Secure Loads
Date first registered:	27 September 2012
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Body responsible for review:	Namibia Training Authority