

<b>Unit ID: 1091</b>	
<b>Domain</b>	<b>CRANE OPERATION - CORE</b>
<b>Title:</b>	<b>Lift and move a load in suspension using a mobile crane</b>
<b>Level: 3</b>	<b>Credits: 6</b>

### Purpose

This unit standard is intended for those who carry out crane operations. People holding credit for this unit standard are able to: Plan and prepare for work; demonstrate knowledge of the application of mobile cranes with loads in suspension; lift and move the load in suspension; perform maintenance and authorised service operations on lifting equipment; and clean up work area.

### Special Notes

1. Entry information:
  - Prerequisite
    - Unit 1079 – *Comply with health, safety and environmental rules and regulations pertaining to crane operations.*
2. In suspension methods may include but are not limited to the use of lifting machinery and equipment such as chain blocks; lever hoists; air hoists; winches; derricks; slings; rope; shackles; eye bolts; spreader and equalising beams; clamps; pulley systems; pull lifts; jacks; sliding shoes; rollers; and tirsors.
3. Expected worksite production target are to be met.
4. Assessment evidence may be collected from a real workplace or a simulated workplace in which crane operations are carried out.
5. Maintenance may include but is not limited to cleaning, authorised servicing and the monitoring, recording and reporting of faults. It may also include the conduct of authorised minor replacements and the provision of assistance to maintenance and repair activities.
6. Safe working practices include but are not limited to day-to-day observation of safety policies and procedures, and compliance with emergency procedures.
7. Performance of all elements in this unit standard must comply with all relevant legal and workplace requirements, contractual agreement and/or manufacturers' specifications.
8. Regulations and legislation, including subsequent amendments, relevant to this unit standard may include but are not limited to the following:
  - Labour Act, No. 11 of 2007
  - Regulations relating to the Health and Safety of employees at work, 1997
  - Road Traffic and Transport Regulations No. 52, 1999 and Government Notice No 53 Road Traffic and Transport Regulations
 and all industry specific regulations, legislations, code of practice, or code of conduct.

## **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. All approved unit standards, qualifications and national assessment arrangements are available on the Namibia Training Authority website [www.nta.com.na](http://www.nta.com.na).

## **Elements and Performance Criteria**

### **Element 1: Plan and prepare for work**

#### **Range**

Inspection and preparation of work area and equipment may include but is not limited to levelling ground; checking soil conditions; proximity of other machines and personnel; stability and suitability of crane; operational capability of lifting equipment such as correct safe working load of slings; and compliance with statutory regulations.

#### **Performance Criteria**

- 1.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, explained, clarified and applied to the allocated task.
- 1.2 Safety requirements, including personal protective clothing and equipment are obtained from the site safety plan, workplace policies and procedures, and applied to the allocated task.
- 1.3 Traffic control requirements are obtained and implemented according to workplace requirements.
- 1.4 Plant, tools, fuel, lubricants, equipment, attachments and accessories selected to carry out tasks are checked for consistency with the requirements of the job, their usability and any faults rectified or reported prior to commencement of work.
- 1.5 Environmental protection requirements are identified from the project environmental management plan and applied to the allocated task.
- 1.6 Work area and equipment is inspected and prepared according to workplace procedures.

### **Element 2: Demonstrate knowledge of the application of mobile cranes with loads in suspension**

#### **Performance Criteria**

- 2.1 The concept of “loads in suspension” is explained.
- 2.2 Lifting and moving a load in suspension scenarios, methods and techniques are described.

- 2.3 Hazards related to lifting and moving loads in suspension are described.
- 2.4 Communication techniques during lifting and moving the load in suspension are explained in terms of general accepted industry procedures.

### **Element 3: Lift and move the load in suspension**

#### **Range**

Safe working practices may include but are not limited to site access; communication and signalling methods; and centre of gravity of load.

#### **Performance Criteria**

- 3.1 Pre-operational checks are carried out on lifting equipment and tackle, in accordance with appropriate checklist and workplace procedures.
- 3.2 Lifting equipment and tackle is used in accordance with manufacturers' specifications and workplace procedures.
- 3.3 Safe working practices are applied and adhered to.
- 3.4 Personnel are allocated to specific positions in order to lift and float the load safely.
- 3.5 The load is inspected for damage and its end position conforms to work instructions reflected on drawing or job requirement.

### **Element 4: Perform maintenance and authorised service operations on lifting equipment**

#### **Performance Criteria**

- 4.1 Lifting equipment is cleaned and stored in accordance with manufacturers' recommendations and workplace procedures.
- 4.2 Information regarding the use of lifting equipment is recorded in accordance with workplace procedures.

### **Element 5: Clean up work area**

#### **Performance Criteria**

- 5.1 Work area is cleared and materials disposed of or recycled in accordance with project environment management plan.
- 5.2 Inspection, faultfinding, and reporting is carried out according to manufacturer's requirements and workplace procedures.

## **Registration Data**

<b>Subfield:</b>	Lifting, shifting, securing loads
<b>Date first registered:</b>	27 March 2013
<b>Date this version registered:</b>	27 March 2013
<b>Anticipated review:</b>	2016
<b>Body responsible for review:</b>	Namibia Training Authority