

Tuesday, December 1, 2015 1:19 AM



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# SOUTH AFRICAN QUALIFICATIONS AUTHORITY REGISTERED UNIT STANDARD:

### **Operate truck-mounted cranes**

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SAQA US ID	UNIT STANDARD TITLE			
242978	Operate truck- mounted cranes			
ORIGINATOR				
SGB Transport and Logistics Operations				
QUALITY ASSURING BODY				
-				
FIELD			SUBFIELD	
Field 11 - Services			Transport, Operations and Logistics	
ABET BAND	UNIT STANDARD TYPE	PRE-2009 NQF LEVEL	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	NQF Level 03	8
REGISTRATION STATUS		REGISTRATION START DATE	REGISTRATION END DATE	SAQA DECISION NUMBER
Reregistered		2015-07-01	2018-06-30	SAQA 10105/14
LAST DATE FOR ENROLMENT		LAST DATE FOR ACHIEVEMENT		
2019-06-30		2022-06-30		
	-			

In all of the tables in this document, both the pre-2009 NQF Level and the NQF Level is shown. In the text (purpose statements, qualification rules, etc.), any references to NQF Levels are to the pre-2009 levels unless specifically stated otherwise.

This unit standard does not replace any other unit standard and is not replaced by any other unit standard.

# **PURPOSE OF THE UNIT STANDARD**

The person credited with this unit standard will be able to understand the functions of a truck mounted crane while using the crane in a safe and suitable manner. They will also be able to access support and emergency services in the case of an incident or accident in the workplace.

The qualifying learner is capable of:

- Demonstrating knowledge of the functions of a truck mounted crane.
- Identifying the safety and suitability of the crane.
- Inspecting and recording the operational fitness of the components of the truck and crane.
- Operating a truck mounted crane.
- Accessing available support systems and emergency services in case of incidents and accidents.

### LEARNING ASSUMED TO BE IN PLACE AND RECOGNITION OF PRIOR LEARNING

It is assumed that learners accessing this unit standard are competent in:

- Communication at NOF Level 2 or equivalent.
- Mathematical Literacy at NOF Level 2 or equivalent.

#### **UNIT STANDARD RANGE**

- Limited to work carried out on a truck-mounted crane 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).
- Cranes shall include:
  - > C32 Truck mounted Crane.
- Attachments shall include:
  - > S Tandem Lifts.
  - > T Special Categories.
- The Codes and Attachments correspond with the National Code of Practice.

# **Specific Outcomes and Assessment Criteria:**

#### **SPECIFIC OUTCOME 1**

Demonstrate knowledge of the functions of a truck mounted crane.

### **ASSESSMENT CRITERIA**

#### **ASSESSMENT CRITERION 1**

The main functions of truck mounted crane's are explained in terms of manufactures specifications.

#### **ASSESSMENT CRITERION 2**

The operation of all major components is explained in terms of their functions.

#### **ASSESSMENT CRITERION 3**

All safety features and warning devices on the crane are identified, and their purposes explained in accordance with manufacturer's specifications.

# **ASSESSMENT CRITERION 4**

The maximum operating capacities are explained in terms of the designed crane capabilities.

#### **ASSESSMENT CRITERION 5**

Warnings from crane indicators and gauges are explained according to manufacturer's specifications.

# **ASSESSMENT CRITERION 6**

Corrective actions are identified and explained in terms of neutralising warnings received.

# **SPECIFIC OUTCOME 2**

Identify the safety and suitability of the crane.

# **ASSESSMENT CRITERIA**

# **ASSESSMENT CRITERION 1**

The suitability of the crane is identified in accordance with its purpose prior to utilisation.

# **ASSESSMENT CRITERION 2**

The operational capability of lifting equipment is assessed according to Safe Work Load of slings.

### **ASSESSMENT CRITERION 3**

The influence of load/range is identified according to Load/range characteristics, manufacturers' requirements and environmental conditions.

# **ASSESSMENT CRITERION 4**

Safety procedures are identified according to crane safety requirements.

# **ASSESSMENT CRITERION 5**

A truck mounted crane is operated in compliance with statutory regulations.

#### **SPECIFIC OUTCOME 3**

Inspect and record the operational fitness of the components of the truck and crane.

#### **ASSESSMENT CRITERIA**

#### **ASSESSMENT CRITERION 1**

Pre-operational checks are carried out according to appropriate checklist.

#### **ASSESSMENT CRITERION 2**

Daily and weekly operator maintenance is performed according to the appropriate post-operational checklist and recorded using a logbook.

#### **ASSESSMENT CRITERION 3**

Checklist is completed according to worksite procedures and corrective action taken to ensure that it complies with manufacturer's specifications.

#### **ASSESSMENT CRITERION 4**

Appropriate measures are identified and used to rectify and/or prevent basic faults and defects in the mechanical function of the crane.

#### **SPECIFIC OUTCOME 4**

Operate a Truck Mounted crane.

#### **ASSESSMENT CRITERIA**

#### **ASSESSMENT CRITERION 1**

The purpose and functions of the various controls are explained in accordance with their designed use and manufacturers specifications.

#### **ASSESSMENT CRITERION 2**

Controls are used to manoeuvre the crane within manufacturer's specifications.

#### **ASSESSMENT CRITERION 3**

Crane performance is monitored and corrective action is taken when necessary, in accordance with manufacturer's specifications.

#### **ASSESSMENT CRITERION 4**

Crane is operated without risk of damage, loss to machine, property, or injury to people.

#### **ASSESSMENT CRITERION 5**

Hazards specific to operating truck mounted crane's are explained and ways to minimise these hazards are explained in terms of potential damage to machine, property, and injury to people.

#### **ASSESSMENT CRITERION 6**

Start-up and shutdown procedures are followed according to manufacturer's specifications.

### **ASSESSMENT CRITERION 7**

Machine is parked according to manufacturer's and company requirements.

# **SPECIFIC OUTCOME 5**

Access available support systems and emergency services in case of incidents and accidents.

#### **ASSESSMENT CRITERIA**

# **ASSESSMENT CRITERION 1**

The most appropriate course of action in relation to the purpose of the various controls is explained in accordance with their designed use.

# **ASSESSMENT CRITERION 2**

The most appropriate course of action in relation to potential hazards in the workplace is explained according to emergency procedures.

# **ASSESSMENT CRITERION RANGE**

Hazards may include but are not limited to: access, obstructions, field of vision, communications, travel route, unauthorized people, insecure loads, unstable loads, unknown loads, nature of loads.

# **UNIT STANDARD ACCREDITATION AND MODERATION OPTIONS**

- An individual wishing to be assessed (including through RPL) against this unit standard may apply to an assessment agency, assessor or provider institution accredited by the relevant ETQA.
- Anyone assessing a learner against this unit standard must be registered as an assessor with the relevant ETQA.
- Any institution offering learning that will enable achievement of this unit standard or assessing this unit standard

- Any institution offering learning that will enable achievement of this unit standard or assessing this unit standard must be accredited as a provider with the relevant ETQA.
- Moderation of assessment will be conducted by the relevant ETQA at its discretion.

#### **UNIT STANDARD ESSENTIAL EMBEDDED KNOWLEDGE**

The following embedded knowledge is addressed in an integrated way in the unit standard:

- The differences in range, structure, function and capacity of truck-mounted cranes.
- The requirement for certification which verifies the safety of the crane, as defined in legislation (Driven Machinery Regulation 18) by a "competent authority".
- The pre-operational and operational and 'close down' checks for the components of the specific truck-mounted crane.
- The principles of lifting weights and the variances of safe capacities according to Manufacturer's specifications.
- Safe and correct slinging methods that can be used with load types normally dealt with by truck-mounted cranes

# **UNIT STANDARD DEVELOPMENTAL OUTCOME**

N/A

#### **UNIT STANDARD LINKAGES**

N/A

# <u>Critical Cross-field Outcomes (CCFO):</u>

# **UNIT STANDARD CCFO IDENTIFYING**

Identify and solve problems using critical and creative thinking when analyzing the load capacity with the load and range charts to ensure the correct selection of lifting equipment, for a safe lifting operation.

#### **UNIT STANDARD CCFO COLLECTING**

Collect, analyse, organise and critically evaluate knowledge of various load weight, size and type for the purpose of selecting and utilising the most appropriate (safe and efficient) method of operating.

### **UNIT STANDARD CCFO DEMONSTRATING**

Demonstrate initiative in selecting the most appropriate gear and equipment dependent on crane types, freight characteristics and environmental conditions.

#### **UNIT STANDARD ASSESSOR CRITERIA**

N/A

### **REREGISTRATION HISTORY**

As per the SAQA Board decision/s at that time, this unit standard was Reregistered in 2012; 2015.

# **UNIT STANDARD NOTES**

N/A

# **QUALIFICATIONS UTILISING THIS UNIT STANDARD:**

	ID	QUALIFICATION TITLE	PRE-2009 NQF LEVEL	NQF LEVEL	STATUS	END DATE	QUALITY ASSURING BODY
Elective	61809	National Certificate: Tyre Repair and Maintenance	Level 2	NQF Level 02	Reregiste red	2018-06- 30	MERSETA
Elective	48794	National Certificate in Quality Checking of Tyres and Tyre Components	Level 3	NQF Level 03	Reregiste red	2018-06- 30	MERSETA
Elective	71989	National Certificate: Automotive Components: Manufacturing and Assembly	Level 3	NQF Level 03	Reregiste red	2018-06- 30	MERSETA
Elective	<u>58862</u>	National Certificate: Electro-Mechanical Winding	Level 3	NQF Level 03	Reregiste red	2018-06- 30	MERSETA
Elective	<u>58720</u>	National Certificate:	Level 3	NQF Level	Reregiste	2018-06-	As per Learning

		Engineering Fabrication		03	red	30	Programmes recorded against this Qual
Elective	64829	National Certificate: Lifting Machine Operations	Level 3	NQF Level 03	Reregiste red	2018-06- 30	TETA
Elective	23255	National Certificate: Mechanical Engineering: Fitting and Machining	Level 3	NQF Level 03	Reregiste red	2018-06- 30	MERSETA
Elective	91926	National Certificate: Mechanical Engineering: Machining and Tooling	Level 3	NQF Level 03	Reregiste red	2018-06- 30	As per Learning Programmes recorded against this Qual
Elective	<u>67609</u>	National Certificate: Mechatronics	Level 3	NQF Level 03	Reregiste red	2018-06- 30	MERSETA
Elective	<u>79666</u>	National Certificate: Metal and Engineering Manufacturing Processes	Level 3	NQF Level 03	Reregiste red	2018-06- 30	MERSETA
Elective	64190	National Certificate: Metals Production	Level 3	NQF Level 03	Reregiste red	2018-06- 30	As per Learning Programmes recorded against this Qual
Elective	49449	National Certificate: Plastics Manufacturing	Level 3	NQF Level 03	Reregiste red	2018-06- 30	MERSETA
Elective	<u>36155</u>	National Certificate: Polymer Composite Fabrication	Level 3	NQF Level 03	Reregiste red	2018-06- 30	MERSETA
Elective	79407	National Certificate: Polymer Compound Manufacturing	Level 3	NQF Level 03	Reregiste red	2018-06- 30	MERSETA
Elective	21012	National Certificate: Power and Telecommunication Cable Manufacturing	Level 3	NQF Level 03	Reregiste red	2018-06- 30	MERSETA
Elective	24217	National Certificate: Thermoplastic Fabrication	Level 3	NQF Level 03	Reregiste red	2018-06- 30	MERSETA
Elective	48798	National Certificate: Tyre and Tyre Component Manufacturing	Level 3	NQF Level 03	Reregiste red	2018-06- 30	MERSETA
Elective	<u>48795</u>	National Certificate: Tyre Assembly	Level 3	NQF Level 03	Reregiste red	2018-06- 30	MERSETA
Elective	<u>57886</u>	National Certificate: Welding Application and Practice	Level 3	NQF Level 03	Reregiste red	2018-06- 30	As per Learning Programmes recorded against this Qual

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