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**SOUTH AFRICAN QUALIFICATIONS AUTHORITY  
REGISTERED UNIT STANDARD:**

**Operate a telescopic boom handler**

| SAQA US ID   | UNIT STANDARD TITLE               |                                  |                                |                             |
|--|-----------------------------------|----------------------------------|--------------------------------|-----------------------------|
| 260781   | Operate a telescopic boom handler |                                  |                                |                             |
| <b>ORIGINATOR</b>                                    |                                   |                                  |                                |                             |
| SGB Generic Manufacturing, Engineering, Technology   |                                   |                                  |                                |                             |
| <b>QUALITY ASSURING BODY</b>                         |                                   |                                  |                                |                             |
| -  |                                   |                                  |                                |                             |
| <b>FIELD</b>   |                                   |                                  | <b>SUBFIELD</b>                |                             |
| Field 06 - Manufacturing, Engineering and Technology |                                   |                                  | Engineering and Related Design |                             |
| <b>ABET BAND</b>                                     | <b>UNIT STANDARD TYPE</b>         | <b>PRE-2009 NQF LEVEL</b>        | <b>NQF LEVEL</b>               | <b>CREDITS</b>              |
| Undefined  | Regular                           | Level 3                          | NQF Level 03                   | 10                          |
| <b>REGISTRATION STATUS</b>                           |                                   | <b>REGISTRATION START DATE</b>   | <b>REGISTRATION END DATE</b>   | <b>SAQA DECISION NUMBER</b> |
| Reregistered   |                                   | 2015-07-01                       | 2018-06-30                     | SAQA 10105/14               |
| <b>LAST DATE FOR ENROLMENT</b>                       |                                   | <b>LAST DATE FOR ACHIEVEMENT</b> |                                |                             |
| 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**

Operating a lifting machine takes place within a regulatory framework that seeks to ensure safety of the operator, the lifting machine and the lifting machine environment. Telescopic boom handlers are inherently dangerous; hence, their safe operation cannot be overstated. The learner will also acquire the competencies and skills to operate the components, systems and levers to accomplish the task of lifting and handling loads appropriately. The aspects of safety and communication during the lifting operation are covered.

It is important that the learners operate Telescopic boom handlers using the competencies in this Unit Standard and in keeping with the requirements of the National Code of Practice (NCOP) for the Evaluation of Training Providers for Lifting Machine Operators (Government Gazette 27292 - 18 February 2005).

Learners credited with this standard will be capable of:

- Discussing and applying the regulatory framework for operating Telescopic boom handlers.
- Describing the telescopic boom handler to be operated.
- Demonstrating mechanical awareness of the telescopic boom handler.
- Inspecting the telescopic boom handler.
- Handling loads with a telescopic boom handler.
- Operating the telescopic boom handler.

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

- Communication at NQF Level 3.
- Mathematical Literacy at NQF Level 3.

#### **UNIT STANDARD RANGE**

N/A

### **Specific Outcomes and Assessment Criteria:**

#### **SPECIFIC OUTCOME 1**

Discuss and apply the regulatory framework for operating a telescopic boom handler.

#### **OUTCOME RANGE**

Includes but is not limited to relevant sections of current legislation of the Occupational Health and Safety Act (Sections 8, 13 and 14), General Safety Regulation 2, General Safety Regulation 9 and Driven Machinery Regulations 18.

#### **ASSESSMENT CRITERIA**

##### **ASSESSMENT CRITERION 1**

The responsibility of the employer and employees regarding health and safety are explained in terms of the legal obligations on both parties.

##### **ASSESSMENT CRITERION 2**

The importance of the right to information is explained to ensure that health and safety issues are not compromised.

##### **ASSESSMENT CRITERION 3**

The regulations pertaining to personal protective equipment (PPE) are explained and applied to ensure that appropriate precautions are taken in the workplace.

##### **ASSESSMENT CRITERION 4**

The regulation pertaining to stacking is explained and applied to ensure safety of self and others.

##### **ASSESSMENT CRITERION 5**

The regulation pertaining to driven machines are explained and applied to maintain the safety of the lifting machine environment.

##### **ASSESSMENT CRITERION 6**

Fundamental knowledge of the NCOP is applied during the use of lifting machines.

##### **ASSESSMENT CRITERION 7**

The code of practice and safety procedures of the organisation are described to ascertain whether they are in conformity with the regulatory framework for lifting machines.

#### **SPECIFIC OUTCOME 2**

Describe the telescopic boom handler to be operated.

#### **ASSESSMENT CRITERIA**

##### **ASSESSMENT CRITERION 1**

The telescopic boom handler is described to demonstrate detailed knowledge of the different types of lifting machines in a category, if applicable.

##### **ASSESSMENT CRITERION RANGE**

Types refers to the various types of lift trucks within the lift truck category, in terms of the NCOP.

##### **ASSESSMENT CRITERION 2**

The functionality of and the context within which the telescopic boom handler can be operated are discussed to demonstrate knowledge of the use of this machine at the appropriate level.

**ASSESSMENT CRITERION 3**

The limitations, capabilities and capacities of the telescopic boom handler are described to ensure that this lifting machine is the most appropriate for the required application.

**SPECIFIC OUTCOME 3**

Demonstrate mechanical awareness of the telescopic boom handler.

**ASSESSMENT CRITERIA****ASSESSMENT CRITERION 1**

The major components of the telescopic boom handler are identified and described in terms of their functions in the operation of the machine.

**ASSESSMENT CRITERION 2**

The systems of the telescopic boom handler are described in terms of their features, functions and inter-relatedness.

**ASSESSMENT CRITERION 3**

The instrumentation of the lifting machine is explained in terms of their functions and what the operator must do in case of a deviation.

**ASSESSMENT CRITERION RANGE**

Instrumentation includes gauges, indicators, warning devices.

**ASSESSMENT CRITERION 4**

The operation of the levers, controls and safety devices is explained and monitored in order to maintain safety during operations.

**ASSESSMENT CRITERION 5**

The attachment/s of the telescopic boom handler is/are used as per manufacturer's instruction and standard operating procedure.

**SPECIFIC OUTCOME 4**

Inspect the telescopic boom handler.

**ASSESSMENT CRITERIA****ASSESSMENT CRITERION 1**

Pre-start checks are conducted to ensure that machine is safe for operation.

**ASSESSMENT CRITERION 2**

The telescopic boom handler is started-up according to manufacturer's instructions.

**ASSESSMENT CRITERION 3**

Shut down procedures are performed to ensure that machine is serviceable for next operator/shift.

**ASSESSMENT CRITERION 4**

The lifting machine is maintained according to manufacturer's instruction and standard operation procedure.

**ASSESSMENT CRITERION 5**

Problems are recorded and reported according to standard operating procedure.

**SPECIFIC OUTCOME 5**

Handle loads with a telescopic boom handler.

**OUTCOME RANGE**

Handle includes identifying, lifting, transporting, stacking and storing.

**ASSESSMENT CRITERIA****ASSESSMENT CRITERION 1**

The physical properties of a load are identified and described according to criteria.

**ASSESSMENT CRITERION RANGE**

Criteria includes but is not limited to density, dimensions, centre of gravity, temperature, stability of a suspended load.

**ASSESSMENT CRITERION 2**

The appropriate attachment for the load type, if applicable, is selected and used as per manufacturer's instructions.

**ASSESSMENT CRITERION 3**

Specific loads are handled according to standard operating procedure.

**ASSESSMENT CRITERION 4**

The ability to assess the operational capability of the machine is assessed to ensure efficiency and safety.

**SPECIFIC OUTCOME 6**

Operate a telescopic boom handler.

**ASSESSMENT CRITERIA****ASSESSMENT CRITERION 1**

Principles of operations/leverage are explained and applied to ensure safe and effective lifting operation.

**ASSESSMENT CRITERION 2**

Load capacity of the telescopic boom handler and its load are determined as per standard operating procedure.

**ASSESSMENT CRITERION 3**

Safe operating procedures are complied with to ensure safety of people, machines and the environment.

**ASSESSMENT CRITERION RANGE**

Procedures include emergency procedures, procedures to deal with hazardous materials if being transported or handled, stacking procedures.

**ASSESSMENT CRITERION 4**

The telescopic boom handler is configured if necessary.

**ASSESSMENT CRITERION 5**

The machine is operated according to its load capacity.

**ASSESSMENT CRITERION 6**

Communication skills are used during the operation of the telescopic boom handler.

**ASSESSMENT CRITERION RANGE**

Communication skills include BAT, radio, hand, semaphore.

**UNIT STANDARD ACCREDITATION AND MODERATION OPTIONS**

- Anyone assessing a learner or moderating the assessment of a learner against this unit standard must be registered as an assessor with the relevant ETQA.
- Any institution offering learning that will enable the achievement of this unit standard must be accredited as a provider with the relevant ETQA.
- Assessment and moderation of assessment will be overseen by the relevant ETQA according to the ETQA policies and guidelines for assessment and moderation.
- Moderation must include both internal and external moderation of assessments at exit points of the qualification, unless ETQA policies specify otherwise. Moderation should also encompass achievement of the competence described both in individual unit standards as well as the integrated competence described in the qualification.

**UNIT STANDARD ESSENTIAL EMBEDDED KNOWLEDGE**

- Legislation and Regulations.
- Components, systems, instrumentation, levers, controls and warning devices of lifting machines.
- Principles of leverage, centre of gravity.
- Types of lift trucks.
- Limitations, capabilities and capacities of the telescopic boom handler.
- Principles and properties of loads.
- Safety operating procedures.
- Communication skills.

**UNIT STANDARD DEVELOPMENTAL OUTCOME**

N/A

**UNIT STANDARD LINKAGES**

N/A

## **Critical Cross-field Outcomes (CCFO):**

### **UNIT STANDARD CCFO IDENTIFYING**

Identify and solve problems in which responses display that responsible decisions using critical and creative thinking have been made when:

- Identifying the telescopic boom handler for application.
- Dealing with problems pertaining to the lifting machine.

### **UNIT STANDARD CCFO WORKING**

Work effectively with other as a member of a team, group, organisation, community to:

- Ensure that telescopic boom handler is fit for operation.
- Operate the telescopic boom handler.

### **UNIT STANDARD CCFO ORGANISING**

Organise and manage oneself and one's activities responsively and effectively when:

- Demonstrating knowledge of the regulatory framework for lifting machines.
- Selecting the telescopic boom handler for a particular lifting application.
- Identifying and describing the systems, instrumentation, levers, control and safety devices of the lifting machine.
- Conducting inspections.
- Recording and reporting problems of the lifting machine.
- Handling loads with the machines.
- Operating the lifting machine.
- Using communication skills.

### **UNIT STANDARD CCFO COLLECTING**

Collect, analyse, organise and critically evaluate information to:

- Select a telescopic boom handler.
- Handle loads according to standard operating procedure.
- Operate the lifting machine safely.

### **UNIT STANDARD CCFO COMMUNICATING**

Communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentation to:

- Lift and move loads.

### **UNIT STANDARD CCFO SCIENCE**

Use science and technology effectively and critically, showing responsibility towards the environment and the health of others by:

- Inspecting and using the telescopic boom handler according to manufacturer's instructions.

### **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:**

|          | <b>ID</b>             | <b>QUALIFICATION TITLE</b>  | <b>PRE-2009 NQF LEVEL</b> | <b>NQF LEVEL</b> | <b>STATUS</b> | <b>END DATE</b> | <b>QUALITY ASSURING BODY</b> |
|----------|-----------------------|---|---------------------------|------------------|---------------|-----------------|------------------------------|
| Elective | <a href="#">48794</a> | National Certificate in Quality Checking of Tyres and Tyre Components   | Level 3                   | NQF Level 03     | Reregistered  | 2018-06-30      | MERSETA                      |
| Elective | <a href="#">71989</a> | National Certificate: Automotive Components: Manufacturing and Assembly | Level 3                   | NQF Level 03     | Reregistered  | 2018-06-30      | MERSETA                      |

|          |                       |   |         |              |              |            |   |
|----------|-----------------------|---|---------|--------------|--------------|------------|---|
| Elective | <a href="#">58862</a> | National Certificate: Electro-Mechanical Winding                      | Level 3 | NQF Level 03 | Reregistered | 2018-06-30 | MERSETA   |
| Elective | <a href="#">58720</a> | National Certificate: Engineering Fabrication                         | Level 3 | NQF Level 03 | Reregistered | 2018-06-30 | As per Learning Programmes recorded against this Qual |
| Elective | <a href="#">64829</a> | National Certificate: Lifting Machine Operations                      | Level 3 | NQF Level 03 | Reregistered | 2018-06-30 | TETA  |
| Elective | <a href="#">23255</a> | National Certificate: Mechanical Engineering: Fitting and Machining   | Level 3 | NQF Level 03 | Reregistered | 2018-06-30 | MERSETA   |
| Elective | <a href="#">91926</a> | National Certificate: Mechanical Engineering: Machining and Tooling   | Level 3 | NQF Level 03 | Reregistered | 2018-06-30 | As per Learning Programmes recorded against this Qual |
| Elective | <a href="#">67609</a> | National Certificate: Mechatronics                                    | Level 3 | NQF Level 03 | Reregistered | 2018-06-30 | MERSETA   |
| Elective | <a href="#">79666</a> | National Certificate: Metal and Engineering Manufacturing Processes   | Level 3 | NQF Level 03 | Reregistered | 2018-06-30 | MERSETA   |
| Elective | <a href="#">64190</a> | National Certificate: Metals Production                               | Level 3 | NQF Level 03 | Reregistered | 2018-06-30 | As per Learning Programmes recorded against this Qual |
| Elective | <a href="#">49449</a> | National Certificate: Plastics Manufacturing                          | Level 3 | NQF Level 03 | Reregistered | 2018-06-30 | MERSETA   |
| Elective | <a href="#">36155</a> | National Certificate: Polymer Composite Fabrication                   | Level 3 | NQF Level 03 | Reregistered | 2018-06-30 | MERSETA   |
| Elective | <a href="#">79407</a> | National Certificate: Polymer Compound Manufacturing                  | Level 3 | NQF Level 03 | Reregistered | 2018-06-30 | MERSETA   |
| Elective | <a href="#">21012</a> | National Certificate: Power and Telecommunication Cable Manufacturing | Level 3 | NQF Level 03 | Reregistered | 2018-06-30 | MERSETA   |
| Elective | <a href="#">24217</a> | National Certificate: Thermoplastic Fabrication                       | Level 3 | NQF Level 03 | Reregistered | 2018-06-30 | MERSETA   |
| Elective | <a href="#">48798</a> | National Certificate: Tyre and Tyre Component Manufacturing           | Level 3 | NQF Level 03 | Reregistered | 2018-06-30 | MERSETA   |
| Elective | <a href="#">48795</a> | National Certificate: Tyre Assembly                                   | Level 3 | NQF Level 03 | Reregistered | 2018-06-30 | MERSETA   |
| Elective | <a href="#">57886</a> | National Certificate: Welding Application and Practice                | Level 3 | NQF Level 03 | Reregistered | 2018-06-30 | As per Learning Programmes recorded against this Qual |

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