

	<b>Unit ID: 820</b>
<b>Domain</b>	<b>ROAD CONSTRUCTION AND MAINTENANCE – BITUMEN ROAD MAINTENANCE</b>
<b>Title:</b>	<b>Use a small self-propelled compactor to compact material</b>
<b>Level: 2</b>	<b>Credits: 6</b>

### Purpose

This unit standard is intended for those who work in road construction and maintenance operations. People holding credit for this unit standard are able to: Demonstrate knowledge of using a small self-propelled compactor to compact material; plan and prepare for work; prepare work area; compact material; complete work related documents; and clean up work area.

### Special Notes

1. Entry information:

Prerequisite

- Unit 712 - *Comply with health, safety and environmental rules and regulations in road construction and maintenance work operations*

2. Quality in this unit standard means adherence to contract requirements and workplace instructions.
3. Expected worksite production target are to be met.
4. Assessment evidence may be collected from a real workplace, a simulated workplace or an appropriately simulated environment in which road construction and maintenance operations are carried out.
5. Equipment, tools, attachments and material include but are not limited to a small self-propelled compactor (drum and/or plate), diesel and specified oil and lubricants. Machine attachments include all permanent and removable standard components.
6. Materials in this unit standard may include but are not limited to cold-mix asphalt, soft to intermediate rock, clays, silts, stones, gravel, sand and water.
7. Preparation of worksite includes but is not limited to levelling ground, checking soil conditions, establishing positions of existing services and checking marks depicting lateral, vertical and horizontal boundaries.
8. Worksite procedures include but are not limited to manufacturers' procedures, operator's manuals and site operational requirements.
9. Maintenance includes 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.

10. Safe working practices include but are not limited to day-to-day observation of safety policies and procedures and compliance with workplace procedures.
11. Performance of all elements in this unit standard must comply with all relevant legal and workplace requirements, contractual agreement and/or manufacturers' specifications.
12. Regulations and legislation relevant to this unit standard include but are not limited to the following:
  - Labour Act, No. 11 of 2007 as amended
  - Occupational Health and Safety Regulations No. 18, 1997
  - Road Traffic and Transport Regulations No. 52, 1999 and Government Notice No 53 Road Traffic and Transport Regulations
  - Road Ordinance 1972 and other relevant legislations and all subsequent amendments.

### **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: Demonstrate knowledge of using a small self-propelled compactor to compact material**

##### **Performance Criteria**

- 1.1 The technology of using a small self-propelled compactor is explained and demonstrated.
- 1.2 The importance of optimum moisture content is explained.
- 1.3 The concept layer thickness and density is explained.

#### **Element 2: Plan and prepare for work**

##### **Performance Criteria**

- 2.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, explained, clarified and applied to the allocated task.
- 2.2 Work instructions are interpreted correctly and a sequence of operations is determined according to worksite procedures.
- 2.3 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.

- 2.4 The purpose of selecting specific tools and attachments is explained in terms of their designed use.
- 2.5 Alternative or complementary equipment is identified in terms of the required task, which includes all equipment that could be used to perform the same or similar tasks.
- 2.6 Appropriate pre-operational machine checklist is acquired according to worksite procedures and manufacturers' specifications.
- 2.7 Safety requirements (including personal protective clothing and equipment) are obtained from the site safety plan and workplace policies and procedures, and applied to the allocated task.
- 2.8 Traffic control requirements are obtained and implemented according to workplace requirements.
- 2.9 Environmental protection requirements are identified from the project environmental management plan and applied to the allocated task.

### **Element 3: Prepare work area**

#### **Performance Criteria**

- 3.1 Work area is inspected and prepared according to worksite procedures.
- 3.2 Descriptions of the procedures to be followed to ensure the safety of the work area are described in terms of the elimination of potential hazards.

### **Element 4: Compact material**

#### **Performance Criteria**

- 4.1 Activities are performed according to project specifications and manufacturers' requirements.
- 4.2 The layers of material are compacted according to project specifications.
- 4.3 Consequences of incorrect usage of compactor are explained in terms of potential damage or loss to machine or property, third party or injury to people.
- 4.4 Circumstances when the specific machine is no longer suitable for the required task or can no longer operate efficiently and safely are dealt with according to worksite procedures.
- 4.5 Safe working procedures are followed according to workplace and statutory requirements.

### **Element 5: Complete work related documents**

### **Performance Criteria**

- 5.1 Work related documents are completed in accordance with contract and workplace requirements.
- 5.2 Maintenance and service related documents are completed in accordance with manufacturer and workplace requirements.
- 5.3 Documents related to accidents or other incidents are completed in accordance with workplace requirements.

### **Element 6: Clean up work area**

#### **Performance Criteria**

- 6.1 Work area is cleared and materials disposed of or recycled in accordance with project environment management plan.
- 6.2 Tools and equipments are cleaned, checked, maintained, serviced and stored in accordance with manufacturers' recommendations and standard work practices.
- 6.3 Unused materials are safely stored and stacked for future use.

### **Registration Data**

<b>Subfield:</b>	Road Construction and Maintenance
<b>Date first registered:</b>	
<b>Date this version registered:</b>	
<b>Anticipated review:</b>	
<b>Body responsible for review:</b>	Namibia Training Authority