

	<b>Unit ID: 833</b>
<b>Domain</b>	<b>ROAD CONSTRUCTION AND MAINTENANCE – MACHINE OPERATIONS</b>
<b>Title:</b>	<b>Carry out road construction and maintenance activities using a front end loader</b>
<b>Level: 3</b>	<b>Credits: 20</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: Plan and prepare for work; perform maintenance and authorised service operations on the front end loader; load material; transfer material over a short distance; complete work related documents; and clean up work area.

Being credited with this unit standard does not enable a person to drive the vehicle on an open, public road. In order to do so, a person must be in possession of a valid and current driving licence relevant to this vehicle type.

### 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. Credit for this unit standard assumes that people are also capable to carry out pre-check operations, start and shut down procedures, and to load and secure a front end loader for transport to and from site
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. This unit standard will focused on the primary functions of the front end loader and excludes other uses such as ripping, levelling, spreading of aggregates.
6. Equipment, tools and materials may include but are not limited to front end loader guidance system, diesel and specified oil and lubricants, and accessory tools.
7. Soils in this unit standard may include but are not limited to clays, silts, stones, gravel, sand and topsoil.
8. 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.

9. Safe working practices include but are not limited to day-to-day observation of safety policies and procedures, and compliance with emergency procedures.
10. Performance of all elements in this unit standard must comply with all relevant legal and workplace requirements, contractual agreement and/or manufacturers' specifications.
11. Regulations and legislation relevant to this unit standard may include but are not limited to the following:
  - Labour Act, No. 11 of 2007
  - 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 on [www.nta.com.na](http://www.nta.com.na).

## **Elements and Performance Criteria**

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

#### **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 and workplace policies and procedures, and applied to the allocated task.
- 1.3 Traffic control requirements are obtained and implemented.
- 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.

## **Element 2: Perform maintenance and authorised service operations on the front end loader**

### **Performance Criteria**

- 2.1 Front end loader is maintained and serviced in accordance with the workplace requirements and manufacturer's procedures.

## **Element 3: Load material**

### **Performance Criteria**

- 3.1 Relevant work instructions are obtained and confirmed in line with workplace procedures.
- 3.2 Material is taken out of the stockpile in a safe and efficient manner consistent with accepted productivity rate.
- 3.3 The loader is manoeuvred within the loading zone in a safe manner in accordance with workplace and manufacturers' requirements.
- 3.4 Approach to the vehicle being loaded optimises load distribution and balance.
- 3.5 The vehicle is loaded within its prescribed capacity and statutory requirements.
- 3.6 Front end loader performance is monitored and corrective action is taken when necessary, in accordance with manufacturers' specifications.
- 3.7 The shape of the stockpile is maintained to optimise material recovery.
- 3.8 The functionality of the loading zone is maintained.
- 3.9 Work operations are integrated with other on-site activities.

## **Element 4: Transfer material over a short distance**

### **Performance Criteria**

- 4.1 Relevant work instructions are obtained and confirmed in line with workplace procedures.
- 4.2 Safe working procedures are followed according to manufacturers' specifications, site specific and statutory requirements.
- 4.3 Front end loader performance is monitored and corrective action is taken when necessary, in accordance with manufacturers' specifications.
- 4.4 Front end loader is operated without risk of damage or loss to machine or property, third party or injury to people.
- 4.5 Material is transferred in accordance with workplace requirements and manufacturers' specifications.
- 4.6 Front end loader is parked in accordance with workplace requirements and manufacturers' specifications.

### **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 manufacturers' 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 Plant, 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