

	Unit ID: 1032
Domain	ROAD CONSTRUCTION AND MAINTENANCE – MACHINE OPERATIONS
Title:	Carry out road construction and maintenance activities using a concrete transport truck
Level: 3	Credits: 20

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; demonstrate knowledge of factors that affect the transportation of ready mixed concrete; perform maintenance and authorised service operations on a concrete transport truck; start and shut down concrete transport truck; transport concrete by truck; 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. Quality in this unit standard means adherence to work instructions. It is assumed that the work instructions are informed by contract requirements.
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. 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 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. All approved unit standards, qualifications and national assessment arrangements are available on the Namibia Training Authority website 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, 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 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 is inspected and prepared according to workplace procedures.

Element 2: Demonstrate knowledge of factors that affect the transportation of ready mixed concrete

Range

Factors contributing to truck rollover may include but are not limited to road surface; camber; corners; gradient; slish effect; static rollover threshold; driver fatigue; and speed.

Factors during transportation may include but are not limited to water; additives; speed of mixer rotation; duration in transit; weather; and temperature.

Performance Criteria

- 2.1 Factors contributing to truck rollover are described and actions for avoidance are explained according to workplace procedures.
- 2.2 Factors during transportation that impact on delivered ready mix concrete are described.

Element 3: Perform maintenance and authorised service operations on a concrete transport truck

Range

Maintenance and servicing procedures may include but are not limited to oil check; water check; tyre check; fuel check; ancillary equipment check; truck safety systems check; and regularly scheduled servicing.

Performance Criteria

- 3.1 Concrete transport truck is maintained and serviced in accordance with the workplace requirements and manufacturer's procedures.
- 3.2 Cleaning requirements and methods for concrete trucks and ancillary equipment are carried out according to workplace procedures and environmental protection requirements.

Element 4: Start and shut down concrete transport truck

Performance Criteria

- 4.1 Pre-operational checks are carried out according to appropriate checklist and workplace procedures.
- 4.2 Daily and weekly operator maintenance is performed according to appropriate checklist and workplace procedures.
- 4.3 Start-up and shutdown procedures are followed according to manufacturer's specifications.
- 4.4 Operating hours are recorded, if required, in accordance with workplace requirements.
- 4.5 Concrete transport truck maintenance and faults are reported in accordance with workplace requirements.

Element 5: Transport concrete by truck

Range

Factors affecting quality of concrete on site may include but are not limited to duration of discharge; water added; wait time; additives and admixtures.

Performance Criteria

- 5.1 Relevant work instructions are obtained and confirmed in line with workplace procedures.
- 5.2 Quantities of material are determined based on the volume of the truck.
- 5.3 The truck is started and operated according to workplace procedures and manufacturer's specifications.
- 5.4 Factors affecting quality of concrete on site are explained in accordance with workplace procedures.
- 5.5 Site access and location of pour are identified.
- 5.6 Hazards associated with site access are identified and controls described in accordance with legislative and workplace requirements.
- 5.7 Concrete is discharged according to site requirements and workplace procedures.
- 5.8 Tools and equipment are used according to their designed purpose.

Element 6: Complete work related documents

Performance Criteria

- 6.1 Work related documents are completed in accordance with contract and workplace requirements.
- 6.2 Maintenance and service related documents are completed in accordance with manufacturer and workplace requirements.
- 6.3 Documents related to accidents or other incidents are completed in accordance with workplace requirements.

Element 7: Clean up work area

Performance Criteria

- 7.1 Work area is cleared and materials disposed of or recycled in accordance with project environment management plan.
- 7.2 Concrete transport truck, tools and equipments are cleaned, checked, maintained, serviced and stored in accordance with manufacturers' recommendations and standard work practices.

Registration Data

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