

Domain**CRANE OPERATION****Title:****Conduct tower crane operations****Level: 4****Credits: 20****Purpose**

This unit standard is intended for those who carry out crane operations. People holding credit for this unit standard are able to: Plan and prepare for work; conduct tower crane operations; carry out documentation, required checks and servicing; clean up work area; and prepare for transport of tower crane to and from site.

Special Notes

1. Entry information:

Prerequisite

- Unit 1079 – *Comply with health, safety and environmental rules and regulations pertaining to crane operations.*

2. This unit standard refers to tower cranes with standardised fittings and a rated capacity in excess of 50 Tons.
3. Expected worksite production target are to be met.
4. Assessment evidence may be collected from a real workplace or a simulated workplace in which crane 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, including subsequent amendments, relevant to this unit standard may include but are not limited to the following:
 - Labour Act, No. 11 of 2007
 - Regulations relating to the Health and Safety of employees at work, 1997
 - Road Traffic and Transport Regulations No. 52, 1999 and Government Notice No 53 Road Traffic and Transport Regulationsand all industry specific regulations, legislations, code of practice, or code of conduct.

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

Range

Inspection and preparation of work area and equipment may include but is not limited to levelling ground; checking soil conditions; proximity of other machines and personnel; stability and suitability of crane; operational capability of lifting equipment such as correct safe working load of slings; and compliance with statutory regulations.

Alternative or complimentary equipment includes all equipment that could be used to perform the same or similar tasks.

Attachments include all permanent and removable components.

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 Plant, tools, fuel, lubricants, alternative or complementary 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 and equipment is inspected and prepared according to workplace procedures.

Element 2: Conduct tower crane operations

Range

Optimal position may refer but is not limited to height; boom position; boom angle; radius; and weather conditions.

Performance Criteria

- 2.1 Tower crane is placed in the optimal position to lift and place loads in accordance with company procedures and manufacturer's recommendations.
- 2.2 The readiness of riggers, slingers and/or other personnel assisting with the lift in terms of their respective positions and tasks, are confirmed.
- 2.3 Load is confirmed as correctly attached, crane takes the weight, and then load is lifted and placed using company procedures and manufacturer's recommendations.
- 2.4 Tower crane performance is monitored and corrective action is taken when necessary, in accordance with manufacturer's specifications.

Element 3: Carry out documentation, required checks and servicing

Performance Criteria

- 3.1 Work related documents are completed in accordance with contract and workplace requirements.
- 3.2 Daily crane checks and servicing are carried out in accordance with company procedures and manufacturer's specifications.
- 3.3 Weekly crane checks and servicing are carried out in accordance with company procedures and manufacturer's specifications.

Element 4: Clean up work area

Performance Criteria

- 4.1 Work area is cleared and materials disposed of or recycled in accordance with project environment management plan.
- 4.2 Plant, tools and equipments are cleaned, checked, maintained, serviced and stored in accordance with manufacturers' recommendations and standard work practices.
- 4.3 Inspection, faultfinding, and reporting is carried out according to manufacturer's requirements and workplace procedures.

Element 5: Prepare for transport of tower crane to and from site

Range

Preparation for transport of tower crane, components and equipment may include but is not limited to handling; dunnage; storage; loads security; and pilot requirements.

Performance Criteria

- 5.1 Customer and/or company liaison and on site assessment are carried out according to company procedures.

- 5.2 Statutory requirements, local body regulations, and other special requirements are identified and actions initiated to deal with them following company procedures.
- 5.3 Personnel involved and/or affected by the move are notified in accordance with company procedures.
- 5.4 Site is prepared to allow assembly or disassembly and appropriate positioning in accordance with company procedures and manufacturer's requirements.
- 5.5 Tower crane, components and equipment are prepared for transport to or from site in accordance with company procedures and manufacturer's specifications.
- 5.6 Hazards are identified in accordance with company risk assessment procedures.

Registration Data

Subfield:	Lifting, shifting, securing loads
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