

Domain	INTERMEDIATE SCAFFOLDING	Unit ID: 1002
Title:	Erect and dismantle vessel scaffolding	
Level: 4		Credits: 10

Purpose

This unit standard specifies the competencies required to erect and dismantle vessel scaffolding. It includes planning and preparing for the erection of vessel scaffolding, erecting vessel scaffolding, linking bays for both bay or lap and rectangular vessel scaffolding, checking the structure is compliant and dismantling vessel scaffolding. This unit standard is intended for those who work in lifting machine operations environment.

Special Notes

1. Entry information:
Prerequisite:
 - Unit 937 - *Apply safety rules and regulations in lifting machine operations* or demonstrated equivalent knowledge and skills.

2. To demonstrate safe working practices the learner should be in possession of personal protective equipment which includes safety glasses, goggles, visors, safety gloves, gauntlets and helmets.

3. Design, erection, and dismantlement of scaffolds and scaffolding structures in this unit standard must take place under the direct supervision of a certified scaffolder who holds a current Certificate of Competence for the scaffolding concerned.

4. Glossary of terms:
 - '*Vessel scaffolding*' refers to scaffolding that encompasses the entire face of a vessel.
 - '*A tank*' refers to a specific type of vessel and for the purposes of this unit standard is included in the term vessel. Vessel scaffolding includes *bay/lap scaffolding, rectangular vessel scaffolding* and *splay scaffolding*.
 - '*Bay/lap scaffolding*' refers to the construction of independent scaffold bays linked by lapping planks or boards (called 'lap bays') to encompass the entire internal or external face of the vessel. Bay/lap scaffolding may thus be constructed inside or outside the vessel.

- *'Rectangular vessel scaffolding'* refers to the construction of a square or rectangular scaffold to surround the exterior of a vessel, which is then planked across at the corners to facilitate access to the vessel. Rectangular vessel scaffolding may only be used when the diameter of the vessel is less than the greatest possible scaffold bay length able to be used and can only be constructed on the outside of the vessel.
 - *'Splay scaffolding'* refers to the construction of abutting trapezoid shaped scaffold to encompass the entire internal or external face of the vessel. Splay scaffolding may be constructed inside or outside the vessel. By its nature splay scaffolding must be constructed with tube and fitting scaffolding.
 - *'Stripping the deck'* refers to the process of removing, in safe order, scaffolding components from a lift above to a lift below or the ground.
 - A *'client'* refers to an individual or representative of a company who commissions a particular scaffold or scaffolding structure to be erected, or is an end user of the scaffold or scaffolding structure.
 - 'BPGFS' refers to best practice guidelines for scaffolding.
5. Evidence is required using multi-bay structures for at least one each of: bay/lap scaffolding; rectangular scaffolding; and splay scaffolding. For the construction of bay/lap and splay scaffolding, assessment may be for scaffolding constructed either inside or outside a vessel. Assessment should not be conducted in scaffolding requiring a Registered Engineer to certify the adequacy of the design prior to the erection of the scaffold.
 6. Assessment evidence may be collected from a real workplace, or an appropriate simulated realistic environment in which lifting machine operations are carried out.
 7. All inspection, operation and maintenance procedures associated with the use of tools and equipment shall comply with manufacturers' specifications, guidelines and instructions.
 8. Regulations and legislation relevant to this unit standard include the following:
 - Labour Act, No. 11, 2007
 - Occupational Health and Safety Regulations No. 18, 1997 and all subsequent amendment.

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.

Elements and Performance Criteria

Element 1: Plan and prepare for the erection of vessel scaffolding.

Range

Vessel scaffolding requirements may include but is not limited to vessel diameter, offset distance, type of vessel scaffolding to be employed.

Scaffold plan must include vessel diameter, offset distance, ground conditions, type of vessel scaffolding to be employed; may also include but is not limited to number of bays, spacing between bays, bracing, guardrails and planking.

Performance criteria

- 1.1 Vessel scaffolding requirements are confirmed with the work supervisor or client.
- 1.2 A scaffold plan is drawn in accordance with best practice for scaffolding.
- 1.3 The necessary equipment is identified and sourced in accordance with the scaffold plan.

Element 2: Erect vessel scaffolding

Range

For bay or lap and rectangular vessel scaffolding individual bays are planked and braced, for splay scaffolding the entire structure is braced and planked.

Performance criteria

- 2.1 The scaffolding is based out in accordance with the scaffold plan.
- 2.2 Lifts are erected in accordance with the scaffold plan.
- 2.3 The scaffolding is braced and planked in accordance with the scaffold plan

Element 3: Link bays for both bay or lap and rectangular vessel scaffolding

Performance criteria

- 3.1 Lap planks are installed and lashed in accordance with the scaffold plan.
- 3.2 Guardrails are erected in accordance with the scaffold plan.

Element 4: Check the structure is compliant

Performance criteria

- 4.1 The structure is checked for compliance with the BPGFS inspection report and the scaffold plan.
- 4.2 An inspection report is completed in accordance with the best practice guidelines for scaffolding (BPGFS).
- 4.3 Where the structure is not compliant changes are made to it to ensure compliance and the BPGFS report is amended accordingly.
- 4.4 Inspection of the structure by a certificated scaffolder who has an appropriate certificate or by a Registered Engineer is sought in accordance with the BPGFS and Occupational Health and Safety Regulation No. 18, 1997. Where the structure is not compliant changes are made to ensure compliance.

Element 5: Dismantle vessel scaffolding

Performance criteria

- 5.1 Lap planks are removed in accordance with the BPGFS.
- 5.2 The deck is stripped in sequence in accordance with the BPGFS and all components removed progressively beginning with kickboards and mid rails from the top working lift.
- 5.3 The stripped deck is descended to the lift below in accordance with the BPGFS.

Registration Data

Subfield:	Lifting Equipment
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Date this version registered:	27 September 2012
Anticipated review:	2015
Body responsible for review:	Namibia Training Authority