

	Unit ID: 260
Domain	METAL FABRICATION-BOILERMAKING
Title:	Lay out, erect and install steel structures as part of metal fabrication operations
Level: 4	Credits: 8

Purpose

This unit standard specifies the competencies required to layout, erect and install steel structures as part of metal fabrication operations. It includes assembling and setting up of equipment, inspection and preparation of erection and installation site, erection and installation of structures as well as completion of work and cleaning up. This unit standard is intended for those who work as boilermakers.

Special Notes

1. Entry information

Prerequisite:

- *Unit 228* – Apply safety rules and regulations in a metal fabrication work environment or demonstrated equivalent knowledge and skills.
2. To demonstrate competence, at a minimum, evidence is required of erecting and installing any four of the steel structures listed in Special Note 6. These tasks should be performed ensuring correct identification of requirements and finishing of the tasks, correct selection and use of appropriate processes, tools and equipment and completing all work to specification.
 3. Assessment evidence may be collected from a real workplace or a simulated real workplace or an appropriate simulated realistic environment in which boilermaker operations are carried out.
 4. Performance of all elements in this unit standard must comply with manufacturers' specifications and workplace specific requirements.
 5. '*Specifications*' refers to any, or all of the following: manufacturers' specifications and recommendations, site and workplace specific requirements.
 6. Structures include but are not limited to, metal frameworks, stairways, walkways, vessels, tanks and conveyor structures.
 7. Regulations and legislation relevant to this unit standard include the following:
 - Occupational Health and Safety Regulations No.18, 1997
 - Labour Act 6 of 1992
 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.

Elements and Performance Criteria

Element 1: Prepare material and equipment

Performance Criteria

- 1.1 Specifications and drawing are identified and interpreted.
- 1.2 Material is selected and prepared in accordance with specifications.
- 1.3 Equipment is assembled, set up and test run safely in line with workplace procedures.

Element 2: Inspect and prepare erection and installation site

Performance Criteria

- 2.1 Erection and installation site is checked for correct location, dimensions and levels.
- 2.2 Non-compliance with specifications is reported to appropriate authority.
- 2.3 Minor corrections and adjustments are undertaken with approval of appropriate authority.
- 2.4 All surfaces, materials and components are prepared for use.
- 2.5 Structure components are identified and checked against specifications.

Element 3: Erect and install steel structure

Performance Criteria

- 3.1 Appropriate personal protective clothing and equipment is selected and used in line with workplace procedures.
- 3.2 Material is assembled according to erection and installation sequence described on specifications and drawings.
- 3.3 Steel structure is erected and installed according to specifications on the drawing.
- 3.4 Structure is adjusted in line with specifications.

Element 4: Complete work and clean up

Performance Criteria:

- 4.1 Work is completed and appropriate personnel notified in line with workplace procedures.
- 4.2 Work area is cleared of waste, cleaned, restored and secured in line with workplace procedures.
- 4.3 Plant, tools and equipment are cleaned, checked, maintained and stored in line with workplace procedures.
- 4.4 Work completion details are finalised in line with workplace procedures.

Registration Data

Subfield:	Mechanical Engineering
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Body responsible for review:	Namibia Training Authority