

Domain	RIGGING	Unit ID: 971
Title:	Lift and move a complex load using a winch	
Level: 4		Credits:6

Purpose

This unit standard specifies the competencies required to lift and move a complex load using a winch. It includes identifying and explaining the application of winches, preparing to lift and/or move the complex load, using a winch to lift and move the complex load and maintaining, caring and storing equipment. This unit standard is intended for those who work in lifting machine operations environment.

Special Notes

1. Entry information:
Prerequisite:
 - 937 - *Apply safety rules and regulations in lifting machine operations or demonstrated equivalent knowledge and skills.*
2. All work is performed under constant supervision and according to workplace and workshop manual specifications and occupational health and safety and environmental legislation.
3. For the purpose of assessment, types of winches to be used may be selected from the range of winches for complex loads which may include but not limited to single and double drum-types. Power source for drum winches may include manual, electrical (AC and DC), by diesel engine, Pneumatic, hydraulic. Steam-driven and visual inspection of winch defects includes the winch capacity (working load Limit-WLL), rope drum, brakes, clutch and emergency stop.
4. Environment contexts under which this unit standards is used include but are not limited to:
 - Manufacturing and engineering (Metals, Plastics, Tyre and Rubber, Electrical Power Generation, Automotive Manufacturing).
 - Chemical and Petrochemical.
 - Mining.
 - Transport (Maritime, Road, Rail and Aviation).
 - Civil Engineering and Construction.
 - Food and Beverages.
 - Other engineering-related industry sectors.
5. Assessment evidence may be collected from a real workplace, or an appropriate simulated realistic environment in which lifting machine operations are carried out.

6. All inspection, operation and maintenance procedures associated with the use of tools and equipment shall comply with manufacturers' specifications, guidelines and instructions.
7. Regulations and legislation relevant to this unit standard include the following:
 - Labour Act, No. 11, 2007
 - Regulations relating to the Health and Safety of employees at work, 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: Identify and explain the application of winches

Performance Criteria

- 1.1 Various types of winches and their application are identified and explained.
- 1.2 The correct methods and techniques for the use of winches and the consequences of unsafe use, is explained and demonstrated.
- 1.3 Basic and major components of winches and related equipment are identified, and the function and purpose is explained according to industry standards.
- 1.4 Terms and definitions used are consistent with generally accepted mechanical handling standards.

Element 2: Prepare to lift and move the complex load

Range

Resources may include but are not limited to mechanical handling equipment, support materials, applicable documentation, and personal protective equipment.

Checks may include but are not limited to efficiency of brake mechanism.

Performance Criteria

- 2.1 The scope and nature of the lifting task is explained, in line with work instructions.

- 2.2 Resources are correct for the task, available on site by the agreed time, and checked for serviceability or status in accordance with standard worksite practices.
- 2.3 Pre-operational checks are carried out in line with work instruction sheet.
- 2.4 The type of winch, lifting tackle and related equipment correspond with the work instruction sheet.

Element 3: Use a winch to lift and move the complex load

Range

For the purpose of assessment, work instructions may include job sheet, work drawings and permit conditions.

Performance Criteria

- 3.1 The lifting and moving task is carried out in line with the work instruction sheet and drawing requirements.
- 3.2 Safety precautions are applied and adhered to in line with legislative requirements.
- 3.3 No damage is done to the winch, lifting equipment, tackle and fellow workers.
- 3.4 The load is inspected for damage and its final position conforms to work instructions as reflected on drawing or job requirement.

Element 4: Maintain, care and store equipment

Performance Criteria

- 4.1 Lifting equipment and tackle is stored in line with manufacturer's specification and requirements.
- 4.2 The proper care and storage procedures for tools and equipment in accordance with work site practices and specifications are explained.
- 4.3 Information regarding the use of the winch and lifting equipment is recorded in accordance with regulations and accepted worksite practice.

Registration Data

Subfield:	Lifting, Shifting and Secure Loads
Date first registered:	27 September 2012
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