Australian Government

DEFCA318 Shift loads manually utilising non motorised equipment

Release: 1

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

DEFCA318 Shift loads manually utilising non motorised equipment

Modification History

Release	TP Version	Comments
1	DEF12 V2	First release. Replaces and is equivalent to DEFCA301B. Shift loads manually utilising non motorised equipment.

Unit Descriptor

This unit covers the competency required to manually shift construction materials and other loads of up to 500kg in weight that are unable to be moved by motorised lifting equipment such as forklifts.
Loads may be moved with equipment such as chain blocks, jacks and winches, which provide mechanical advantage. Alternatively, devices such as slings, gins, derricks and sheers may need to be constructed to provide the mechanical advantage necessary to lift and move the load. Loads will need to be prepared for movement using a range of ancillary devices such as strapping, netting, ropes and chains.
No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication. In a Defence context, this means that there is no civilian need to hold this unit in order to meet licensing, legislative, regulatory or certification requirements.

Application of the Unit

This competency was developed for combat engineer personnel required to shift loads manually utilising non motorised equipment in a deployed operational environment but is applicable to any individual in this field of work.
Typically, operators work as part of a team under direct supervision, use discretion and judgement, and take responsibility for the quality of their outputs.
All activities are carried out in accordance with relevant organisational policies and procedures.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes of a Unit of Competency.	Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare to shift the load	1.1 Appropriate ***personal protective equipment*** is selected and worn in accordance with WHS requirements. 1.2 Job instructions are used to identify the ***type of load, safe working load and working load limits***, and the distance and/or height to be moved. 1.3 Load is examined to determine condition, length, bulk, weight, most appropriate ***method to shift the load*** and resources required. 1.4 Any damage to load is recorded and reported to supervisor. 1.5 A movement plan is developed, potential difficulties are identified, and the method of shifting the load and any requirement for additional personnel are approved by the supervisor. 1.6 ***Tools, load shifting equipment and other materials*** are selected, checked for serviceability and any defects are reported to the supervisor. 1.7 The work site is prepared to ensure sufficient clear space is available in accordance with job instructions.

2. Shift the load	2.1 Load is broken down, where applicable, to allow handling and moving a number of single items to ensure the maximum weight of 500 kg is not exceeded. 2.2 Mechanical strapping equipment and ***other securing*** devices are used, when applicable, to stabilise the load, in accordance with manufacturer's and job instructions. 2.3 Where applicable, the load is slung/unslung, using the correct securing devices, in accordance with national standards, safety codes and operational instructions. 2.4 ***Mechanical aids and field machines*** are constructed, when required, by the approved shifting method, so that the load can be shifted in accordance with job instructions. 2.5 Safe working limits for lifting equipment are identified and maintained. 2.6 Load is moved safely in accordance with approved shifting method and steadied by tag lines, if required, and stored and stacked in relocated position. 2.7 Any part of the load that is damaged during the lift is reported to the supervisor in accordance with ***standard procedures***.
3. Refurbish equipment and work site	3.1 Site is cleaned and cleared of debris and unwanted material. 3.2 Field machines, tools and equipment are cleaned, inspected, serviced, maintained and stored in accordance with standard procedures. 3.3 Documentation is completed in accordance with standard procedures.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- calculate and measure
- use knots and lashings
- splice and maintain cordage and SWR
- handle materials and identify manual handling risks
- use manual handling equipment to shift loads
- use slings and securing devices
- follow instructions/directives and report information
- use a variety of verbal and non-verbal communication techniques including language style, active listening
- write at the level required to complete workplace forms and reports
- calculate total weights of individual items and estimate overall load and compare with safe working load(s) of equipment

Required Knowledge

- types of construction materials and their characteristics
- workplace and equipment safety requirements including relevant WHS regulations, codes and standards applying to load shifting
- handling requirements for different types of material and loads
- storage requirements for different materials
- use of tools and equipment relevant to shifting loads
- pulling and lifting equipment relevant to manual handling operations
- appropriate anchor points for locating slings and anchorages
- estimation/calculation of weights
- principles of team work
- techniques for supporting others
- composition of teams and roles and responsibilities of team members
- verbal and nonverbal communication techniques including language style, active listening
- written communication to a level required to complete workplace forms and reports

Evidence Guide

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessment must confirm the ability to shift at least three different types of loads, of weights up to 500 kg, using at least three different methods utilising the load shifting equipment, mechanical aids and field machines listed in the Range Statement. Slinging devices must be used in conjunction with one load shifting activity using a field machine

Assessment must also confirm the ability to:

- calculate safe working limits and working load limits of anchors, load attachment points and lifting/moving equipment
- construct field machines and mechanical aids
- safely strap, sling, lift and move loads without damage to the load, equipment or personnel
- identify faults and deficiencies and take action to rectify any problems
- communicate effectively and work in a team

Consistency in performance

Competency should be demonstrated over time and across a range of simulated or actual workplace situations that allows for the construction and use of a variety of non-motorised load shifting equipment under a range of field conditions.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in the workplace or in a simulated workplace environment.

Specific resources for assessment

Access to:

- a suitable site for training and assessment
- goods, cargo or materials to be lifted
- appropriate load lifting equipment
- a range of tools and equipment to construct mechanical aids and field machines

Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. **Bold italicised** wording in the Performance Criteria is detailed below.

Personal protective equipment may include:	• boots • cap • dust masks/respirators • ear plugs/muffs • gloves • hard hat • leather apron • safety glasses/goggles
Types of loads to be shifted may include:	• aluminium sections • bagged material – cement, lime • defence stores – barbed wire, sandbags, steel pickets • drum material – adhesives, sealants • loaded pallets • medium density fibreboard (MDF) • particle board • plywood • stone • timber sections
Safe working load and working load limits may include:	• static vertical load lifting up to 2.5 m above ground level • vertical lift and lateral load movement of 4 m total range • vertical lift and 360 degrees of load movement to a radius of 2 m
Methods of shifting loads may include:	• chain blocks • flatbed hand trucks • hand trucks • incline planes • levers • mechanical aids and field machines • pallet trolleys • rollers • slab trolleys
Tools, load shifting equipment and other materials may include:	• anchorages • cables • chains • cordage

Other securing devices may include:	• crow bars • measuring tape/rule • mechanical aids • packers • slings • steel wire rope (SWR) • wedges • chains • mechanical strapping equipment • nets • ropes
Mechanical aids and field machines may include:	• block and tackle, pulleys • gins, sheers and derricks • hand operated winches • improvised methods such as spanish windlass and par-buckles • jacks • use of expedient materials such as materials obtained on the job from resources available in the local environment
Standard procedures may include:	• equipment manufacturer's instructions • field engineering pamphlets • industry codes of practice • procedures manuals, job guides and other publications • WHS regulations and procedures related to load shifting • written and verbal orders and job instructions

Unit Sector(s)

Not applicable.