



Australian Government

Department of Education, Employment and Workplace Relations

DEFCA301B Shift loads manually utilising non-motorised equipment

Release: 1

DEECA301B Shift loads manually utilising non-motorised equipment

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit covers the competency required to manually shift construction materials and other loads of up to 500 kg 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.

The unit will usually be conducted under *field conditions* working under supervision as part of a team.

Application of the Unit

Application of the Unit

The application of this unit in the workplace - the environments, complexities and situations involved - will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

This text will be useful for the purposes of job descriptions, recruitment advice or job analysis; where possible, it will not be too job specific to allow other industries to import it into other Training Packages, where feasible.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite Unit/s	BCG1000A Carry out interactive workplace communication
	BCG1011A Handle construction materials and safely dispose of waste
	BSBCMN311A Maintain workplace safety

Employability Skills Information

Employability Skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

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 Required Skills and Knowledge and/or the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<p>1. Plan and prepare to shift the load</p>	<p>1.1 Appropriate <i>personal protective equipment</i> is selected and worn in accordance with OH&S requirements</p> <p>1.2 Job instructions are used to identify the <i>type of load, safe working load and working load limits</i>, and the distance and/or height to be moved</p> <p>1.3 Load is examined to determine condition, length, bulk, weight, most appropriate <i>method to shift the load</i> and resources required</p> <p>1.4 Any damage to load is recorded and reported to supervisor</p> <p>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</p> <p>1.6 <i>Tools, load shifting equipment and other materials</i> are selected, checked for serviceability and any defects are reported to the supervisor</p> <p>1.7 The work site is prepared to ensure sufficient clear space is available in accordance with job instructions</p>
<p>2. Shift the load</p>	<p>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</p> <p>2.2 Mechanical strapping equipment and <i>other securing devices</i> are used, when applicable, to stabilise the load, in accordance with manufacturer's and job instructions</p> <p>2.3 Where applicable, the load is slung/unslung, using the correct securing devices, in accordance with national standards, safety codes and operational instructions</p> <p>2.4 <i>Mechanical aids and field machines</i> are constructed, when required, by the approved shifting method, so that the load can be shifted in accordance with job instructions</p> <p>2.5 Safe working limits for lifting equipment are identified and maintained</p> <p>2.6 Load is moved safely in accordance with approved shifting method and steadied by tag</p>

3. Refurbish equipment and work site

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*

3.1 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

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 OH&S 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

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. Slings 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 a time frame 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 field conditions or a realistic simulation. Evidence should be gathered by observing the individual constructing and using various types of non-motorised load shifting equipment, under supervision, to lift and move loads up to 500 kg in accordance with job instructions.

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

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.

Field conditions may include	<p>A range of terrain, soil and vegetation</p> <p>Under all weather conditions</p> <p>By day or night and under illumination</p>
Personal protective equipment may include	<p>Boots</p> <p>Safety glasses/goggles</p> <p>Ear plugs/muffs</p> <p>Dust masks/respirators</p> <p>Gloves</p> <p>Hard hat</p> <p>Cap</p> <p>Leather apron</p>
Types of loads to be shifted may include	<p>Timber sections</p> <p>Loaded pallets</p> <p>Aluminium sections</p> <p>Plywood</p> <p>Particle board</p> <p>Medium density fibreboard (MDF)</p> <p>Bagged material - cement, lime</p> <p>Drum material - adhesives, sealants</p> <p>Stone</p> <p>Defence stores - barbed wire, sandbags, steel pickets</p>
Safe working load and working load limits may include	<p>Static vertical load lifting up to 2.5 m above ground level</p> <p>Vertical lift and lateral load movement of 4 m total range</p> <p>Vertical lift and 360 degrees of load movement to a radius of 2 m</p>
Methods of shifting loads	<p>Pallet trolleys</p>

RANGE STATEMENT**include**

Hand trucks
 Slab trolleys
 Flat bed hand trucks
 Levers
 Rollers
 Incline planes
 Chain blocks
 Mechanical aids and field machines

Tools, load shifting equipment and other materials may include

Measuring tape/rule
 Mechanical aids
 Crow bars
 Packers
 Wedges
 Chains
 Slings
 Cables
 Cordage
 Steel wire rope (SWR)
 Anchorages

Other securing devices include

Ropes
 Nets
 Chains
 Mechanical strapping equipment

Mechanical aids and field machines may include

Gins, sheers and derricks
 Block and tackle, pulleys
 Hand operated winches
 Jacks
 Improvised methods such as Spanish windlass and par-buckles
 Use of expedient materials such as materials obtained on the job from resources available in the local environment

RANGE STATEMENT**Standard procedures refer to**

OH&S regulations and procedures related to load shifting

Written and verbal orders and job instructions

Procedures manuals, job guides and other publications

Industry codes of practice

Equipment manufacturer's instructions

Field engineering pamphlets

Unit Sector(s)

Not applicable.

Corequisite Unit/s**Co-requisite Unit/s**

Nil