



Australian Government

Department of Education, Employment and Workplace Relations

PUADEFDV008B Employ hand tools in an underwater environment

Revision Number: 1

PUADEFDV008B Employ hand tools in an underwater environment

Modification History

Not applicable.

Unit Descriptor

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This unit covers the competency required to use *hand tools* in an underwater environment.

The unit also includes selecting the appropriate hand tools for the work task and inspecting them for serviceability. The diver must ensure the tools are secured on own body throughout the dive, and correctly employ the tools during the work task, with particular attention to safety.

The diver will be responsible for the recovery of any waste arising from the work task. Finally, the hand tools must be de serviced and stored appropriately for ongoing use.

Note: This Unit of Competency relates, in part, to the existing standards of the Australian Diver Accreditation Scheme (ADAS). All information was correct at the time of development of this Unit of Competency; however, any diver seeking ADAS accreditation should consult ADAS and not rely on the information contained in this unit.

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

PUADEFDV001B Dive using self-contained underwater breathing apparatus in open water to 30 metres

Employability Skills Information

Employability Skills

This unit contains employability skills.

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
1. Select and prepare hand tools	<p>1.1 <i>Work task</i> and <i>worksite data</i> are determined and analysed to determine the specific requirements for hand tools</p> <p>1.2 Work plan is developed consistent with the dive plan</p> <p>1.3 Hand tools and <i>protective equipment</i> are <i>selected, inspected and prepared</i></p> <p>1.4 Hand tools are secured safely to/from the dive site</p> <p>1.5 Access obstructions and other <i>hazards</i> are assessed and <i>action</i> is taken to <i>remove/reduce the risk</i></p> <p>1.6 Occupational health and safety (OH&S) requirements and recognised safety precautions are applied in accordance with standard procedures, manufacturers' instructions and legislation</p>
2. Operate hand tools underwater	<p>2.1 Hand tools are secured on self during the dive for ease of accessibility and lack of interference with mobility and dive equipment</p> <p>2.2 Work-safe area is established and the location and safety of divers is confirmed prior to commencing work task/s</p> <p>2.3 Hand tools are <i>employed</i> underwater ensuring management of their associated hazards</p>
3. Maintain hand tools	<p>3.1 <i>Environmental impact</i> arising from use of hand tools is minimised and waste products are recovered</p> <p>3.2 Hand tools and protective equipment are <i>de-serviced</i> after use</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required Skills

- ability to dive
- employ hand tools
- identify requirement for hand tools
- maintain hand tools

Required Knowledge

- care of tools
- dive equipment
- dive physics
- general occupational/diving safety awareness
- identification of tool faults
- oceanography
- relevant references and Australian Standards
- use of tools on land
- work hazards

Evidence Guide

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

Assessment must confirm the ability to attend to personal and collective safety; and to consider the environmental impact as part of the dive plan.

Consistency in performance

Competency should be demonstrated during a number of work tasks where the diver employs not less than four different hand tools in underwater work tasks for a total usage time of not less than 60 minutes.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in the ocean supported by questioning on shore or aboard vessels.

When practicable, assessment should relate to the diver's vocational focus.

Specific resources for assessment

Access to a complete range of diving, safety and accessory equipment; and hand tools.

Guidance information for assessment

Information that will assist or guide assessment will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

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.

Hand tools may include

Augur
 Bars
 Bolt cutters
 Chisel
 Clamps
 Feeler gauge
 File
 Hammer
 Pliers
 Poker gauge
 Rasp
 Saws
 Screwdrivers
 Wire brush
 Wrench

Work task may include

Bending
 Chiselling
 Cleaning/de-rusting
 Cutting
 Fastening
 Grinding
 Hammering
 Nailing
 Stapling
 Tightening and loosening bolts and screws
 Twisting

Worksite data may include

Composition of work object

RANGE STATEMENT

	Condition of work object
	Current
	Depth
	Gradient
	Hazards
	Obstacles
Protective equipment may include	Boots
	Gloves
Selecting, inspecting and preparing hand tools and protective equipment may include	Honing
	Loading (stapler/riveter)
	Oiling/greasing
	Sharpening
Hazards may include	Impact of hand tool on dive equipment (e.g. hoses, gauges, communications lines)
	Fall zone of objects being worked on
	Operational zone of hand tool (e.g. knife)
	Release of fuels and associated chemical contaminants resident at the work site
Action to remove/reduce the risk may include	Erecting signage
	Using patrol/sentry craft
Employment of hand tools may include	Bending
	Chiselling
	Cleaning/de-rusting
	Cutting
	Fastening
	Grinding
	Hammering
	Nailing
	Stapling
	Tightening and loosening bolts and screws
	Twisting

RANGE STATEMENT**Environmental impact includes**

Contamination of surrounding water (e.g. leaking oil)
 Physical damage to reef and associated floor eco-systems (e.g. coral)
 Visual pollution of waste material (e.g. concrete and metal parts)

De-servicing may include

Drying
 Logging work details into equipment logs
 Oiling/greasing
 Refurbishing edges
 Washing in fresh water

Unit Sector(s)

Not applicable.

Corequisite Unit/s

Co-requisite Unit/s Nil