



Australian Government

DEFDV008B Employ hand tools in an underwater environment

Release 2

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Modification History

Release	TP Version	Comments
2	DEF12 V2	Layout adjusted. No changes to content.
1	DEF12 V1	Primary release.

Unit Descriptor

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

As agreed in the creation of this Training Package, applications for units transferred from the PUA00 Public Safety Training Package will be developed as part of continuous improvement plans, and taking into account the change in Unit of Competency format as detailed in templates for Streamlined Training Packages.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

DEFDV001B Dive using self-contained underwater breathing apparatus in open water to 30 metres.

Employability Skills Information

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

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.

Range Statement

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 • condition of work object • current • depth • gradient • hazards • obstacles
Hand tools may include:	• augur • bars • bolt cutters • chisel • clamps • feeler gauge • file • hammer • pliers • poker gauge • rasp • saws • screwdrivers • wire brush • wrench
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
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.