



Australian Government

DEFWDV015 Employ explosive power tools in an underwater environment

Release: 1

DEFWDV015 Employ explosive power tools in an underwater environment

Modification History

Release 1. This is the first release of this unit of competency in the DEF Defence Training Package.

Application

This unit specifies the skills and knowledge required to employ explosive power tools (EPTs) in an underwater environment.

It includes preparing and selecting an appropriate EPT for underwater work task and inspecting it for serviceability. It also includes recovering waste, and deservicing and storing of equipment.

This unit applies to persons working as Defence Divers or to others working in this field.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Persons undertaking this unit work independently and perform specific tasks in a range of contexts that could be unpredictable.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable

Competency Field

Work Diving

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential Performance criteria describe the performance needed to

outcomes.

demonstrate achievement of the element.

1 Prepare to use EPTs underwater

- 1.1** Identify and analyse work task and worksite data to determine EPT specific requirements
- 1.2** Develop work plan consistent with dive plan
- 1.3** Select, inspect and prepare EPTs, explosive charges and protective equipment in accordance with work plan
- 1.4** Secure EPTs and explosive charges safely to/from dive site
- 1.5** Identify obstructions and other hazards, to determine risks and to manage appropriate risk control measures

2 Operate EPTs underwater

- 2.1** Secure EPTs and explosive charges on self in accordance with operational and safety procedures
- 2.2** Ensure material or base set out intended for explosive fasteners complies with detailed drawings and work plan specifications
- 2.3** Install EPT attachments and chamber EPT charges in accordance with manufacturer specifications
- 2.4** Determine safe work area, and confirm location of other divers prior to commencing work task/s in accordance with work plan
- 2.5** Operate EPTs under water safely and manage identified risks
- 2.6** Clear and render safe EPTs in accordance with manufacturer specifications
- 2.7** Check fastener penetration for angle, depth and integrity of base in accordance with work plan

3 Complete underwater EPT operations

- 3.1** Minimise environmental impact arising from use of EPTs and recover waste products
- 3.2** De-service EPT and protective equipment in accordance with work plan
- 3.3** Record explosive charge usage in accordance with organisational procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces but is not equivalent to DEFWDV015B Employ explosive power tools in an underwater environment.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6bdbab1e-11ed-4bc9-9cba-9e1a55d4e4a9>

Assessment Requirements for DEFWDV015 Employ explosive power tools in an underwater environment

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria where the diver fires at least two charges into concrete, masonry or steel over a minimum of two underwater work tasks and include:

- applying relevant legislation, standards, and organisational policies and procedures
- applying underwater risk control measures and work plan requirements
- developing underwater explosive power tools work plan, including managing identified risks
- handling explosive charges and protective equipment safely
- using explosive power tools safely underwater in accordance with work plan.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- dive equipment
- dive physics
- dive physiology and medicine including:
 - heat and cold illnesses
 - compression illnesses
 - decompression illnesses
- diving descent and ascent techniques
- general diving safety awareness including:
 - diving in harbours
 - diving in tidal waters, currents and tides
 - diving on and/or near a ship's bottom
 - lost/separated
 - entrapment/foul lines
 - marine animal threats
 - pollution/weeds
 - working in confined spaces

- oceanography
- principles of underwater explosive power tool (EPT) operation
- relevant explosive hazards and control measures
- relevant EPT safety distances
- relevant legislation, standards, and organisational policies and procedures
- relevant underwater workplace hazards and control measures.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

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Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, explosive power tools, equipment and personal protective equipment currently used in industry
- ocean with a range of oceanic, diurnal and nocturnal environments
- applicable documentation including organisational procedures, regulations, codes of practice and operation manuals.

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

Links

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6bdbab1e-11ed-4bc9-9cba-9e1a55d4e4a9>