



Australian Government

DEFVH002A Extract disabled equipment using winching techniques in a field environment

Release: 2

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Modification History

Release	TP Version	Comments
2	DEF12V2	Layout adjusted. No changes to content.
1	DEF12V1	Primary release.

Unit Descriptor

This unit covers the competency required to assess equipment and vehicles requiring recovery and to employ suitable winching techniques and procedures to extricate casualties utilising specialist recovery vehicles equipped with motorised winching equipment.

Application of the Unit

This unit applies to the operation of winching equipment capable of extracting a range of vehicles and equipment. Winching may be necessary to extract vehicles and equipment which have become bogged or broken down and due to terrain or environmental factors, cannot be extracted by other means.

Typically, winching operations are conducted by individuals acting independently or in charge of a small team, isolated from assistance or supervision.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

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. Respond to call for assistance	1.1 Winching tasks are received and details are confirmed 1.2 Tasks are assessed to determine equipment requirements 1.3 Recovery vehicle is checked and prepared for task in accordance with workplace procedures 1.4 Recovery vehicle is deployed to casualty site in preparation to conduct task
2. Assess winching task	2.1 Liaison is conducted with on site personnel 2.2 Equipment casualty is assessed to determine suitability for winching 2.3 Site is inspected, hazards and obstacles associated with winching are identified and measures are implemented to overcome obstacles 2.4 Winching equipment requirements to extricate casualty are determined to ensure recovery vehicle and equipment are suitable for task 2.5 Winching procedure is developed taking into account terrain conditions, requirements of casualty, site, recovery equipment and vehicle capabilities 2.6 Work health and safety (WHS) requirements are determined and applied during winching operations
3. Prepare for winching task	3.1 Equipment casualty is prepared for winching in accordance with winching procedure 3.2 Winching equipment is prepared in accordance with winching procedure 3.3 Briefing of on site personnel is conducted and tasks are allocated and supervised
4. Extricate equipment casualty using winch	4.1 Winching process is closely controlled and conducted in accordance with winching procedure 4.2 Minor problems are dealt with as they arise 4.3 Assistance is sought from appropriate personnel when major problems outside scope of own capabilities occur
5. Finalise winching operations	5.1 Equipment casualty is handed over to owner or recovered further in accordance with workplace procedures 5.2 Winching equipment is recovered and inspected for damage in accordance with workplace procedures 5.3 Unserviceable equipment is reported and suitable

ELEMENT

PERFORMANCE CRITERIA

- actions are taken in accordance with workplace procedures
- 5.4 Equipment is maintained in accordance with manufacturer's instructions and workplace procedures
- 5.5 Documentation is compiled and reports are made in accordance with workplace procedures
- 5.6 Worksite is refurbished in accordance with workplace procedures

Required Skills and Knowledge

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

Required Skills

- allocate appropriate materials and personnel to task
- assess risks
- brief and direct personnel
- communicate effectively in the workplace
- perform basic mathematical calculations
- provide reports and appropriate documentation
- solve problems relevant to task

Required Knowledge

- basic vehicle mechanical principles
- basic engineering principles including:
 - theory of levers and pulleys
 - material capabilities
- characteristics and capabilities of recovery vehicles and equipment
- maintenance requirements and procedures
- organisational WHS procedures relevant to winching operations
- recovery methods and procedures
- reporting requirements and procedures

Evidence Guide

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

Assessment must confirm the ability to:

- conduct winching operations on ground which is soft enough to simulate the conditions encountered when winching bogged vehicles
- conduct a winching operation to extricate a light and a medium/heavy rigid vehicle
- utilise motorised winches, winch ropes and associated fittings

Consistency in performance

Competency should be demonstrated over time using a variety of equipment casualties and situations which the candidate is likely to encounter within the workplace.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in areas of difficult terrain incorporating undulating ground.

Specific resources for assessment

Access is required to:

- recovery vehicles and winching equipment
- actual or simulated equipment casualties
- specific workplace operating procedures and publications

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.

<i>Workplace procedures</i> may include:	• Australian Standards • Briefs • Duty statements • Legislative requirements • Manufacturers' handbooks, industry specifications and technical instructions • WHS regulations • Organisational policies and procedures • Procedure manuals • Relevant state/territory or federal legislation • Standard operating procedures • Written or verbal instructions
<i>Equipment casualties</i> may include:	• Construction equipment • Light vehicles • Medium or heavy rigid vehicles • Plant equipment
<i>Hazards associated with winching</i> may include:	• Environmental hazards • Equipment failure • Fatigue • Hazardous materials contained within equipment casualties • Manual handling of heavy and/or awkward loads
<i>Obstacles to winching</i> may include:	• Distance between casualty and winching point • Soil conditions • Terrain • Vegetation • Weather conditions
<i>Winching equipment</i> may include:	• Chains • Joining devices including: • hammerlocks • oblong links • shackles • swivels • Pulleys • Winches • Winch ropes and fittings

<i>Winching procedure</i> may include:	• Attachment method • Contingencies • Equipment layout • Mechanical advantage • Resources • Safety procedures • Sequence of events • Total pull required • Velocity ratio
<i>WHS requirements</i> may include:	• Personal protective equipment • Safety distances • Safety equipment • Warning devices
<i>Briefing of on site personnel</i> may include:	• Communication procedures • Emergency procedures • Safety requirements • Winching procedures
<i>Minor problems</i> may include:	• Avoidable damage to equipment casualty during winching operations • Minor malfunctions and breakages within winching equipment
<i>Major problems</i> may include:	• Breakage of winch rope • Major malfunctions within winching equipment • Requirements for extricating equipment casualty exceeding capabilities of recovery vehicle • Rollover of equipment casualty • Serious injuries to on site personnel

Unit Sector(s)

Not applicable.