



Australian Government

Department of Education, Employment and Workplace Relations

FPICOT3260 Recover four wheel drive vehicles

Release: 1

FPICOT3260 Recover four wheel drive vehicles

Modification History

Version	Detail
1	New unit

Unit Descriptor

This unit covers the use of a variety of recovery equipment and advanced skills to recover four-wheel drive (4x4) vehicles in difficult terrain conditions.

Application of the Unit

This unit involves the recovery of 4x4 vehicles in a variety of work settings. The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority.

Licensing/Regulatory Information

Compliance with licensing, legislative, regulatory or certification requirements may be required in various jurisdictions.

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 performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan 4x4 recovery	<ul style="list-style-type: none">1.1 Identify and follow <i>occupational health and safety</i> (OHS), <i>environmental</i>, <i>legislative</i> and <i>organisational requirements</i> relevant to 4x4 recovery1.2 Survey site to identify hazards, assess risks and select suitable strategy1.3 Select <i>personal protective equipment</i> (PPE) appropriate to type of recovery operation1.4 <i>Inform</i> appropriate personnel of your location1.5 Determine potential environmental impact of recovery
2. Operate in a safe manner	<ul style="list-style-type: none">2.1 Consider <i>operating variables</i>, define danger zone and <i>apply strategies</i> to reduce risk and environmental impact during recovery2.2 Use rated <i>recovery equipment</i> correctly2.3 Use appropriate <i>communication</i> during recovery operations2.4 Repair environmental damage where possible
3. Apply recovery method appropriate for the desired outcome	<ul style="list-style-type: none">3.1 Determine recovery method based on the <i>terrain conditions</i> and <i>pulling techniques</i> required of the situation3.2 Determine the <i>resources</i> required and their availability3.3 Communicate the recovery method selected and inform supervisor of your decision if appropriate3.4 Set up an exclusion zone3.5 Maintain communication with others to explain progress in recovery
4. Demonstrate the safe use of jacks	<ul style="list-style-type: none">4.1 Identify hazards with the safe positioning of <i>jacks</i>4.2 Use <i>safe operating procedures while using a jack</i> to lift a vehicle4.3 Demonstrate safe recovery of a vehicle using a jack
5. Maintain vehicle recovery equipment	<ul style="list-style-type: none">5.1 Apply correct <i>maintenance</i> procedures for recovery equipment5.2 Document equipment maintenance according to organisational procedures

Required Skills and Knowledge

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

Required skills:

- Technical skills to:
 - use and maintain relevant tools, machinery and equipment
 - perform minor routine servicing of own vehicle
 - use a snatch strap, winch or jack and other recovery equipment to recover a 4x4 vehicle
 - conserve vehicle energy with appropriate throttle use
- Communication skills to use appropriate communication and interpersonal techniques with colleagues and others
- Literacy skills to:
 - record and report workplace information
 - maintain documentation
- Numeracy skills to:
 - estimate, measure and calculate time required to perform 4x4 drive recovery
 - estimate and measure water depths, fuel consumption and other variables
- Problem-solving skills to:
 - identify problems and equipment faults
 - demonstrate appropriate response procedures

Required knowledge:

- Applicable federal, state or territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for recovering a 4x4 vehicle
- Environmental protection requirements, including the safe disposal of waste material and the minimisation of carbon emissions and environmental impact
- Environmental risks and hazards relevant to recovering 4x4 vehicles in difficult terrain conditions
- Techniques to use jacks and other recovery equipment
- Factors affecting choice of recovery equipment and mode of recovery
- Issues to consider when defining danger zones
- Effect of suction on vehicles to identify mass weight needed for cable and winch capacity
- Hazards and safety issues associated with the use of jacks and recovery equipment
- Environmental impacts of 4x4 operation
- Types of tools and equipment, and procedures for their safe use and maintenance
- Procedures for recording and reporting workplace information

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to provide evidence that they can recover 4x4 vehicles in difficult terrain conditions

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

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements of this unit and include demonstration of:

- using different vehicle jacks in different terrains and environmental conditions
- using a winch and a snatch block (2:1) in difficult terrain, using ground anchor points for both hard ground and soft sand
- using other types of recovery equipment in a safe and efficient manner

Context of and specific resources for assessment

- Competency is to be assessed in the workplace or a realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of required knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to follow regulatory requirements and Australian standards
- The following resources should be made available:
 - workplace location or simulated workplace
 - materials and equipment relevant to undertaking work applicable to this unit
 - specifications and work instructions
 - 4x4 vehicle
- Assessment of this competency requires access to:
 - appropriate 4x4 vehicle
 - a suitable outdoor environment with difficult

terrain where four-wheel drive skills may be demonstrated

- maintenance and repair resources
- vehicle recovery equipment
- food and water resources

Method of assessment

- Due to issues such as the variation in terrain and possible recovery scenarios, this unit must be assessed over a minimum of two different occasions and two different techniques, in order to ensure consistency of performance over the range statement variables and applicable contexts
- Assessment methods must satisfy the endorsed Assessment Guidelines of the FPII 1 Training Package
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of required knowledge
- Assessment must be by direct observation of tasks, with questioning on required knowledge and it must also reinforce the integration of employability skills
- Assessment methods must confirm the ability to access, interpret and apply the required knowledge
- Assessment may be applied under project-related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with assessment of other units of competency
- The assessment environment should not disadvantage the candidate
- Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender or language backgrounds other than English
- Where the participant has a disability, reasonable adjustment may be applied during assessment
- Language and literacy demands of the

assessment task should not be higher than those
of the work role

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, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

OHS requirements:

- are to be in line with federal, state or territory legislation and regulations, and organisational safety policies and procedures, and may include:
 - PPE and clothing
 - safety equipment
 - current first aid equipment in vehicle
 - current vehicle firefighting equipment
 - hazard and risk control
 - fatigue management
 - elimination of hazardous materials and substances
 - safe forest practices, including required actions relating to forest fire
 - techniques for manual handling, including shifting, lifting and carrying

Environmental requirements may include:

- legislation
- organisational policies and procedures
- workplace practices

Legislative requirements:

- are to be in line with federal, state or territory legislation, regulations, certification requirements and codes of practice and may include:
 - award and organisational agreements
 - industrial relations
 - Australian standards
 - confidentiality and privacy
 - OHS
 - the environment
 - equal employment opportunity
 - anti-discrimination
 - relevant industry codes of practice
 - duty of care

- Organisational requirements** may include:
- legal compliance documentation
 - organisational and site guidelines
 - policies and procedures relating to own role and responsibility
 - procedural manuals
 - quality and continuous improvement processes and standards
 - OHS, emergency and evacuation procedures
 - ethical standards
 - recording and reporting requirements
 - equipment use, maintenance and storage requirements
 - environmental management requirements, including waste minimisation and disposal, recycling and re-use guidelines
- Personal protective equipment** may include:
- boots
 - gloves
 - eye protection
 - long pants
- Informed** may include:
- verbal or written
 - emergency positioning
 - personal location beacon (PLB)
 - flares
 - markers
 - phone
 - radio
- Operating variables** may include:
- type of recovery equipment used and associated risks, e.g. possibility of cable or rope failure
 - direction of recovery
 - suitable protection
 - potential for vehicle roll or fall
 - effect of suction on cable/winch capacity
- Applied strategies** may include:
- defining a danger zone
 - safely using equipment
 - using rated equipment where practicable
 - safe operating procedures
 - risk assessment practices

- ensuring only appropriate personnel are in danger zone

Recovery equipment may include:

- cables
- jacks
- tow ropes
- tree protectors
- shackles
- chains
- recovery straps
- snatch straps
- winch and snatch block

Communication may include:

- verbal and non-verbal language
- radio protocols

Terrain conditions may include:

- smooth
- rough
- uneven
- slippery
- wet
- boggy
- sandy
- steep or hilly
- rock
- icy
- snow
- mud, including:
 - brown clay
 - black silt
 - salt pan mud
 - red
- hard ground
- water

Pulling technique may include:

- complex and multi-line
- straight pull
- double pull
- starting vehicle
- taking towed object to a location

- using a snap strap
- using a winch

Resources may include:

- winch:
 - electric
 - hydraulic
 - manual
 - pull along
- jacks
- recovery points
- rated recovery hooks
- assorted cables, including steel cables
- plasma ropes
- snatch straps
- snatch blocks
- chains or shackles
- tree trunk protectors
- cable dampeners
- tyre deadman or buried anchor
- log deadman
- Spanish windless
- A-frame

Jacks may include:

- jack points
- bottle jack
- exhaust jack
- high-lift jack (Wallaby jack)

Safe operating procedures while using a jack may include:

- regard for personal safety
- regard for vehicle stability
- awareness of soft footing

Maintenance may include:

- cleaning
- cable rolling
- greasing and oiling

Unit Sector(s)

Common Technical

Competency field

Competency field n/a