



Australian Government

Department of Education, Employment and Workplace Relations

FPIFGM3214 Operate a four wheel drive in a towing situation

Release: 1

FPIFGM3214 Operate a four wheel drive in a towing situation

Modification History

Version	Detail
1	New unit

Unit Descriptor

This unit covers the techniques for towing and moving an object using a four-wheel drive (4x4) vehicle on roads and varied terrain. This may include towing a trailer, vehicle or equipment as well as moving logs or other loads.

Application of the Unit

This unit involves the operation of a 4x4 vehicle in a towing situation. The skills and knowledge required for competent workplace performance of towing are to be used within the scope of the person's job and authority.

Licensing/Regulatory Information

Licensing, legislative, regulatory or certification requirements may apply 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

1. Prepare 4x4 for towing
 - 1.1 Identify and follow *occupational health and safety* (OHS), environmental, legislative and *organisational requirements* relevant to operating in a towing situation
 - 1.2 Identify *type of object* to be towed and determine a suitable towing arrangement
 - 1.3 Identify equipment requirements and techniques to carry out the towing job
 - 1.4 Identify potential *hazards* that may be experienced at the towing site and during the towing operation
 - 1.5 Assess the towing activity for safety and security of persons, vehicles and property
 - 1.6 Check the *4x4 vehicle* to ensure equipment is appropriate to conditions and operationally effective in line with *manufacturer specifications*
2. Drive 4x4 towing a trailer
 - 2.1 Identify hazards and risk-management strategies associated with towing a trailer
 - 2.2 Safely couple and uncouple the trailer
 - 2.3 Secure load onto trailer
 - 2.4 Apply *risk-management strategies* while 4x4 vehicle is in operation and towing a trailer
 - 2.5 Demonstrate reversing a trailer uphill, around corners and in a straight line
 - 2.6 Use correct jack technique to change a trailer wheel
 - 2.7 Park and shut down 4x4 vehicle in line with manufacturer specifications and organisational requirements
3. Drive 4x4 moving an attached object
 - 3.1 Secure vehicle, equipment or object to be towed using appropriate *recovery devices*
 - 3.2 Apply risk-management strategies to a 4x4 vehicle operating in a towing situation
 - 3.3 Park and shut down 4x4 vehicle in line with manufacturer specifications and organisational requirements
4. Perform post-towing
 - 4.1 Notify relevant personnel of trip completion

tasks

4.2 Document activity in line with organisational procedures

4.3 Apply maintenance procedures for allocated vehicle

Required Skills and Knowledge

Required skills:

- Technical skills to:
 - use and maintain relevant tools, machinery and equipment
 - perform minor routine servicing of vehicle
 - operate 4x4 vehicle in a towing situation
 - tow a trailer and move an attached object safely and according to organisational requirements
 - conserve 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
 - complete documentation relating to towing a trailer or object
- Numeracy skills to measure, estimate and calculate:
 - time required to complete the task
 - force of the recovery operation
 - journey time, fuel consumption and other variables
- Problem-solving skills to identify problems and equipment faults
- Teamwork skills to work safely and collaboratively with others when towing a trailer or object
- Initiative and enterprise skills to:
 - apply precautions and required action to minimise, control or eliminate hazards that may exist during work activities
 - select and use personal protective equipment (PPE) in line with OHS requirements

Required knowledge:

- Applicable federal, state or territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes when towing a trailer or object
- Environmental protection requirements, including the safe disposal of waste material and the minimisation of carbon emissions and environmental impact
- Environmental risks and hazards, organisational and site standards, requirements, policies and procedures for towing a trailer or object
- Road rules, regulations, permit and licence requirements of the relevant state or territory
- Operational knowledge of 4x4 vehicle, including controls, instruments and indicators, and their use
- 4x4 techniques
- Vehicle maintenance requirements

- Established communication channels and protocols
- Vehicle problem identification and resolution strategies, and common vehicle fault-finding techniques
- Types of tools and equipment, and procedures for their safe use and maintenance
- Procedures for recording and reporting workplace information
- Characteristics, applications, capabilities and limitations of a 4x4 vehicle while towing a trailer or object
- Tools and equipment used when setting up and securing an object for towing
- Problems that may occur when setting up and securing an object for towing

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 tow a trailer or move an object using a 4x4 vehicle safely and in line with organisational requirements

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 and performance criteria of this unit and include demonstration of:

- following applicable federal, state or territory legislative and regulatory requirements and codes of practice relevant to operating a 4x4 vehicle towing a trailer or object
- following organisational policies and procedures relevant to operating a 4x4 in a towing situation
- assessing the safety of towing a trailer or object
- operating a 4x4 over a range of towing situations

Context of and specific resources for assessment

- Competency is 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 offsite context
- Assessment is to follow relevant regulatory requirements and Australian standards
- The following resources should be in place:
 - 4x4 vehicle
 - workplace location or simulated workplace
 - materials and equipment relevant to undertaking work applicable to this unit
 - specifications and work instructions

Method of assessment

- Assessment methods must satisfy the endorsed Assessment Guidelines of the FPI11 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

Type of object may include:

- vehicle
- water tank
- log
- rock
- other object

Hazards may include:

- damage to vehicle
- wet and iced terrain
- flooded terrain
- fire in vehicle
- fire at the scene
- faulty brakes
- leaking fuel
- faulty steering mechanism on vehicle
- animals and objects in vehicle path
- crocodiles and snakes in some areas
- windy or foggy sections of terrain
- steep slopes
- land slides
- tree limbs
- black ice
- trailers
- logs, rocks and other unexpected obstacles
- weather conditions
- slippery surfaces

- unsafe or damaged equipment
- spilt or leaking fuel or dangerous or hazardous goods or substances
- unsafe manual-lifting procedures

4x4 vehicle may include:

- manual and automatic four-wheel drive
- all-wheel drive

Manufacturer specifications may include:

- engine characteristics, including:
 - towing capacity of the vehicle
 - system's warning functions
 - four-wheel drive operation
 - radius of turning circle
 - safety procedures
 - instructions relating to engine air intake

Risk-management strategies may include:

- appropriate vehicle and trailer clearance
- appropriate approach and departure angles
- correct load management
- controlled braking methods using:
 - electric brakes
 - no brakes
 - override brakes
- adequate movement of the tow system
- making adjustment for extra length and width of trailers, and their tendency to 'cut in' on corners and curves
- making appropriate adjustment in braking distance to compensate for the combined extra weight of vehicle and trailer
- driving vehicle to minimise trailer sway
- engaging a lower gear when travelling downhill with a trailer to give greater vehicle control and reduce load on brakes
- ensuring mirrors on both sides of towing vehicle are properly adjusted to give a clear view of vehicles approaching from the rear

Recovery devices may include:

- winches
- ropes

- cables
- slings
- pullers

Unit Sector(s)

Forest Growing and Management