



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **SISODRV404A Drive a 4WD vehicle in difficult terrain**

**Release: 2**

## **SISODRV404A Drive a 4WD vehicle in difficult terrain**

### **Modification History**

Not Applicable

### **Unit Descriptor**

This unit describes the performance outcomes, skills and knowledge required to select and use appropriate range, gear and techniques to drive a four wheel drive vehicle through and over difficult terrain. This includes the performance of maintenance and minor repairs on four wheel drive vehicles.

### **Application of the Unit**

This unit applies to those who drive 4WD vehicles in difficult terrain for work or recreational purposes.

It applies to those working autonomously as four wheel drive adventure guides or program managers and may include those working for private four wheel drive schools or clubs who are responsible for planning, organising and implementing four wheel drive programs in difficult terrain.

This unit may also apply to leaders working for outdoor education or adventure providers; volunteer groups; not-for-profit organisations or government agencies.

### **Licensing/Regulatory Information**

Driving must be carried out according to the licensing, certification requirements of the relevant State or Territory authority.

### **Pre-Requisites**

SISODRV302A Drive and recover a 4WD vehicle

### **Employability Skills Information**

This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

### Elements and Performance Criteria

#### ELEMENT

#### PERFORMANCE CRITERIA

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.

1. Plan the four wheel driving activity.

- 1.1. Determine ***contextual issues*** impacting on the activity according to ***relevant legislation*** and ***organisational policies and procedures***.
- 1.2. Access ***relevant sources*** to identify and interpret ***weather and environmental information***.
- 1.3. Determine ***food and water requirements*** according to ***principles of nutrition*** and contextual issues.
- 1.4. Access required ***equipment*** and check serviceability according to relevant legislation and organisational policies and procedures.

2. Drive a four wheel drive vehicle in difficult terrain.

- 2.1. Perform ***routine pre-departure checks*** and take action to correct any deficiency.
- 2.2. Apply safe vehicle loading practices and secure personal items according to organisational policies and procedures
- 2.3. Engage front free wheel hubs where appropriate.
- 2.4. Survey track to identify hazards and risks, and select the best route to minimise damage to the environment.
- 2.5. Advise passengers of any special safety precautions to be taken when traversing ***difficult terrain***.
- 2.6. Use appropriate range, gear, speed, driving and braking technique to negotiate a range of difficult terrain types while maintaining control of vehicle at all times.
- 2.7. Perform a safe stop and forward or reverse start on a steep incline where required.
- 2.8. Demonstrate appropriate use of handbrake.
- 2.9. Apply risk management procedures relating to blind corners and oncoming traffic according to organisational policies and procedures.

3. Perform maintenance

- 3.1. Access maintenance equipment and conduct ***routine***

ELEMENT	PERFORMANCE CRITERIA
and minor repairs on four wheel drive vehicles.	<i>maintenance and repair tasks.</i> 3.2. Check, where necessary, brakes and undercarriage after negotiating difficult terrain. 3.3. Use a jack to support a four wheel drive vehicle on uneven ground, according to organisational policies and procedure and manufacturer's specifications. 3.4. Perform wheel removal and or replacement. 3.5. Complete vehicle performance reports and notify designated personnel.

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills

- problem-solving skills to:
  - anticipate and mitigate potential hazards and risks in difficult terrain
  - reduce environmental impact
  - conduct pre-departure checks, basic maintenance and repairs of vehicle
- communication and literacy skills to:
  - record all maintenance and repairs conducted on the four wheel drive vehicle
  - report to relevant personnel
- planning and organising skills to access all required equipment appropriate to the area and terrain being accessed .

### Required knowledge

- legislation and organisational policies and procedures to enable safe participation during four wheel driving
- features and characteristics of four wheel drive vehicles and equipment to enable their appropriate selection and safe use of vehicles and equipment
- four wheel driving techniques used in difficult terrain
- terrain and weather features and how these might impact on four wheel driving including terrain specific safety requirements to minimise risk to self, others and the environment
- maintenance and basic repair procedures to ensure risk minimisation to self and group
- minimal impact techniques to enable protection of the environment.

## 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

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

Evidence of the following is essential:

- plans equipment and supply requirements according to the conditions and duration of the activity and conducts routine pre-departure checks of vehicle or vehicles and takes action to correct deficiencies
- surveys track and assesses risk for both day and night driving, and selects route that reduces environmental impact and risk to self and others
- performs maintenance and minor repairs on four wheel drive vehicle, and reports details on vehicle performance and action taken to appropriate personnel.

#### Context of and specific resources for assessment

Assessment must ensure application of driving techniques to negotiate difficult terrain types that reflect local conditions and are of a sufficient duration to demonstrate competency and consistency of performance.

Assessment must also ensure access to:

- a suitable outdoor environment with difficult terrain for four wheel driving
- a suitable four wheel drive vehicle with low range
- maintenance, navigation and repair equipment
- resources and information to plan and select equipment for the activity
- legislation and organisational policies and procedures that impact on the conduct of four wheel driving.

#### Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- observation of safe four wheel driving technique on difficult terrain
- oral or written questioning to assess knowledge of difficult terrain features and risks
- observation of safe maintenance and repair performance
- third-party reports from supervisor detailing

performance.

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:

- SISODRV405A Coordinate recovery of 4WD vehicles

## 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.

- Contextual issues*** may include:
- weather conditions, including times
  - season
  - transport
  - location
  - trip distance and duration
  - group objectives
  - group size.
- Relevant legislation*** may include:
- occupational health and safety
  - permits or permission for access
  - area restrictions
  - national and state or territory track classification guides
  - environmental regulations.
- Organisational policies and procedures*** may include:
- occupational health and safety
  - use and maintenance of equipment
  - communication protocols
  - land management and minimal impact codes
  - vehicle reporting and notification procedures
  - travelling in convoy with other vehicles
  - code of ethics.
- Relevant sources*** may include:
- Bureau of Meteorology
  - media
  - land managers or agencies
  - local knowledge.
- Weather and environmental information*** may include:
- satellite images
  - daily and weekly forecasts
  - maximum and minimum temperatures
  - weather warnings
  - event warnings
  - river levels
  - synoptic charts
  - high and low tide predictions.
- Food and water requirements*** may include:
- menu planning and preparation
  - range of foods and drinks

- perishability
  - storage
  - energy content.
- Principles of nutrition*** may include:
- food groups
  - dietary guidelines
  - individual food requirements and allergies.
- Equipment*** may include:
- navigation equipment
  - maintenance equipment
  - recovery equipment
  - chains.
- Routine pre-departure checks*** may include:
- engine
  - body
  - mirrors
  - tyres
  - accessories.
- Difficult terrain*** may include:
- long, steep inclines and declines
  - cross slope driving
  - deep water crossings
  - tracks with narrow, twisting, irregular terrain
  - irregular sandy and or muddy terrain
  - very rough rocky ground
  - snow and ice
  - slippery incline and declines.
- Routine maintenance and repair tasks*** may include:
- change wheels in uneven terrain
  - puncture repairs
  - fluid top-up.

## Unit Sector(s)

Outdoor Recreation

## Competency Field

Driving