



**Australian Government**

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

# **SISODRV302A Drive and recover a 4WD vehicle**

**Release: 1**

## SISODRV302A Drive and recover a 4WD vehicle

### Modification History

Not Applicable

### Unit Descriptor

<b>Unit descriptor</b>	<p>This unit describes the performance outcomes, skills and knowledge required to use appropriate range, gear and techniques to drive a four wheel drive vehicle through and over a variety of terrain types. This includes the application of basic vehicle recovery techniques and maintenance.</p> <p>Driving must be carried out according to the licensing, certification requirements of the relevant State or Territory authority.</p>
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit applies to outdoor recreation leaders working for outdoor education or adventure providers; volunteer groups; not-for-profit organisations or government agencies.</p>
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### Licensing/Regulatory Information

Refer to Unit Descriptor

### Pre-Requisites

<b>Prerequisite units</b>	Nil	

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## 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.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan for four wheel driving.	1.1. Determine structural and handling differences between a conventional two wheel drive and a <b>four wheel drive vehicle</b> . 1.2. Identify the purpose and use of front wheel hubs where appropriate, recovery points and mounting features. 1.3. Identify factors affecting tyre size, fitment, rating, and pressure. 1.4. Identify hazards associated with incorrect use of vehicle features or equipment. 1.5. Select <b>equipment</b> and check working condition according to manufacturer's recommendations and <b>organisational policies and procedures</b> . 1.6. Access <b>relevant sources</b> to interpret <b>weather and environmental information</b> and determine activity plan. 1.7. Determine <b>food and water requirements</b> according to <b>principles of nutrition</b> and <b>contextual issues</b> .
2. Perform pre-departure checks.	2.1. Perform <b>routine pre-departure checks</b> 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. Advise passengers of safety precautions to be taken when traversing rough terrain according to <b>relevant legislation</b> and organisational policies and procedures.
3. Drive in a variety of terrain types.	3.1. Survey track to identify hazards, assess risk and select routes that minimise damage to the environment. 3.2. Apply smooth accelerator control strategies over a <b>range of terrain types</b> . 3.3. Apply recommended braking techniques for hard top surfaces and off road conditions. 3.4. Identify situations where the engagement of four wheel drive is required. 3.5. Engage 4W drive and front hubs or centre differential lock where required. 3.6. Use appropriate range, gear, speed, driving and braking technique to negotiate a range of terrain types while maintaining control of vehicle at all

ELEMENT	PERFORMANCE CRITERIA
	times. 3.7. Perform a stop and reverse on a moderate incline.
4. Recover a vehicle.	4.1. Identify risks associated with vehicle recovery and develop and implement strategies to minimise risks according to relevant legislation and organisational policies and procedures. 4.2. Identify recovery points and prepare vehicles for recovery. 4.3. Apply recommended mounting strategy on the four wheel drive vehicle and use of rated recovery equipment. 4.4. Apply techniques for joining recovery or snatch strap. 4.5. Coordinate safe recovery of a four wheel drive vehicle using a single snatch strap. 4.6. Perform post recovery checks and repairs. 4.7. Apply techniques for arresting the snatch strap in case of breakage during recovery
5. Perform maintenance and minor repairs.	5.1. Access maintenance equipment and conduct <i>routine maintenance</i> and <i>repair tasks</i> . 5.2. Check, where necessary, brakes and undercarriage after negotiating varying terrain. 5.3. Demonstrate safe use of a jack to support a four wheel drive vehicle on uneven ground, according to organisational policies and procedure and manufacturer's specifications. 5.4. Complete vehicle performance reports and notify designated personnel.
6. Evaluate four wheel driving activity.	6.1. Evaluate <i>relevant aspects</i> of the activity. 6.2. Identify improvements for future four wheel driving activities.

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

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

#### Required skills

**REQUIRED SKILLS AND KNOWLEDGE**

- problem-solving skills to:
  - respond appropriately to changing terrain and weather conditions
  - anticipate and mitigate potential hazards and risks
  - conduct basic checks and maintenance of vehicle
  - perform safe vehicle recoveries
- planning and organising skills to:
  - perform thorough pre-departure checks
  - select relevant equipment, spare parts, and tracks that minimises environmental impact
- communication and literacy skills to:
  - record all maintenance and repairs conducted on the four wheel drive vehicle
  - report maintenance activities to relevant personnel
- self management skills to:
  - review and reflect on own performance
  - identify improvements.

**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 safe conduct of driving and recovery activities
- four wheel driving techniques used across different terrain
- terrain and weather features and how these might impact on four wheel driving including terrain specific safety requirements to minimise risk to self and others
- recovery and maintenance procedures to ensure risk minimisation to self and group
- reflection and review principles to enable effective self evaluation for future improvement
- minimal impact techniques to ensure protection of the environment.

## Evidence Guide

<b>EVIDENCE GUIDE</b>	
<p>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.</p>	
<b>Overview of assessment</b>	
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> <li>• safe 4WD driving technique over a variety of terrains</li> <li>• plans equipment and supply requirements according to the conditions and duration of the activity and conducts routine pre-departure checks of vehicles and takes action to correct deficiencies</li> <li>• applies appropriate technique to recover a four wheel drive vehicle using a single recovery or snatch strap</li> <li>• performs maintenance and minor repairs on four wheel drive vehicle, and reports details on vehicle performance and action taken to appropriate personnel</li> <li>• reviews four wheel driving performance to identify strengths and areas requiring improvement.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must ensure application of driving techniques to negotiate a range of terrain types that reflect local conditions to demonstrate competency and consistency of performance.</p> <p>Assessment must also ensure access to:</p> <ul style="list-style-type: none"> <li>• a suitable outdoor environment for four wheel driving</li> <li>• a suitable low range four wheel drive vehicle</li> <li>• recovery, maintenance and repair equipment</li> <li>• resources and information to plan and select equipment for the activity</li> <li>• legislation and organisational policies and procedures that impact on the conduct of four wheel driving.</li> </ul>
<b>Method of assessment</b>	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> <li>• observation of safe four wheel driving technique over a variety of terrain</li> <li>• oral or written questioning to assess knowledge of terrain types and associated risks and procedures for</li> </ul>

<b>EVIDENCE GUIDE</b>	
	<p>maintenance and repairs</p> <ul style="list-style-type: none"> <li>• observation of safe recovery of four wheel drive using a single recovery or snatch strap</li> <li>• third-party reports from a supervisor detailing performance.</li> </ul> <p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended</p>
<b>Guidance information for assessment</b>	

## Range Statement

<b>RANGE STATEMENT</b>	
<p>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.</p>	
<b><i>Four wheel drive vehicle</i></b> may include:	<ul style="list-style-type: none"> <li>• manual</li> <li>• automatic</li> <li>• part time</li> <li>• constant</li> </ul>
<b><i>Equipment</i></b> may include:	<ul style="list-style-type: none"> <li>• navigation equipment</li> <li>• recovery equipment</li> <li>• maintenance equipment</li> <li>• personal equipment or resources.</li> </ul>
<b><i>Organisational policies and procedures</i></b> may include:	<ul style="list-style-type: none"> <li>• occupational health and safety</li> <li>• use and maintenance of equipment</li> <li>• communication protocols</li> <li>• land management and minimal impact codes</li> <li>• vehicle reporting and notification procedures</li> <li>• travelling in convoy with other vehicles</li> <li>• code of ethics.</li> </ul>
<b><i>Relevant sources</i></b> may include:	<ul style="list-style-type: none"> <li>• Bureau of Meteorology</li> <li>• media</li> </ul>



<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• land managers or agencies</li> <li>• local knowledge.</li> </ul>
<b><i>Weather and environmental information</i></b> may include:	<ul style="list-style-type: none"> <li>• satellite images</li> <li>• daily and weekly forecasts</li> <li>• maximum and minimum temperatures</li> <li>• weather warnings</li> <li>• event warnings</li> <li>• river levels</li> <li>• synoptic charts</li> <li>• high and low tide predictions.</li> </ul>
<b><i>Food and water requirements</i></b> may include:	<ul style="list-style-type: none"> <li>• menu planning and preparation</li> <li>• range of foods and drinks</li> <li>• perishability</li> <li>• storage</li> <li>• energy content.</li> </ul>
<b><i>Principles of nutrition</i></b> may include:	<ul style="list-style-type: none"> <li>• food groups</li> <li>• dietary guidelines</li> <li>• individual food requirements and allergies.</li> </ul>
<b><i>Contextual issues</i></b> may include:	<ul style="list-style-type: none"> <li>• weather conditions, including times</li> <li>• season</li> <li>• transport</li> <li>• location</li> <li>• trip distance and duration</li> <li>• group objectives</li> <li>• group size.</li> </ul>
<b><i>Routine pre-departure checks</i></b> may include:	<ul style="list-style-type: none"> <li>• engine</li> <li>• body</li> <li>• mirrors</li> <li>• tyres</li> <li>• accessories.</li> </ul>
<b><i>Relevant legislation</i></b> may include:	<ul style="list-style-type: none"> <li>• occupational health and safety</li> <li>• permits or permission for access</li> <li>• area restrictions</li> <li>• national and state or territory track classification guides</li> <li>• environmental regulations.</li> </ul>
<b><i>Range of terrain types</i></b> may include:	<ul style="list-style-type: none"> <li>• moderate inclines or declines</li> <li>• sloping terrain</li> <li>• very soft ground</li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• rocky areas</li> <li>• sand</li> <li>• axle deep water crossings</li> <li>• mud or black soil</li> <li>• snow or ice.</li> </ul>
<i>Routine maintenance and repair tasks</i> may include:	<ul style="list-style-type: none"> <li>• changing wheels in uneven terrain</li> <li>• fluid top up.</li> </ul>
<i>Relevant aspects</i> may include:	<ul style="list-style-type: none"> <li>• objectives</li> <li>• planning process</li> <li>• activity site</li> <li>• weather</li> <li>• equipment selection</li> <li>• clothing selection</li> <li>• food selection</li> <li>• instructional content</li> <li>• instructional technique</li> <li>• assessment technique</li> <li>• group feedback</li> <li>• directing techniques</li> <li>• rescue techniques employed.</li> </ul>

### Unit Sector(s)

<b>Unit sector</b>	Outdoor Recreation
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### Co-requisite units

<b>Co-requisite units</b>	

## Competency field

Competency field	
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