



**Australian Government**

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

# **RIIVEH303A Drive heavy combination vehicle**

**Release: 1**

## **RIIVEH303A Drive heavy combination vehicle**

### **Modification History**

Not applicable.

### **Unit Descriptor**

This unit covers driving a heavy combination vehicle in the resources and infrastructure industries. It includes planning and preparing for operations, operating a heavy combination vehicle, coupling and uncoupling trailers, and carrying out operator maintenance. Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Relevant information must be sourced prior to application of the unit.

### **Application of the Unit**

This unit is appropriate for those working in an operational role at worksites within:

- Civil construction
- Coal mining
- Drilling
- Extractive industries
- Metalliferous mining

### **Licensing/Regulatory Information**

Refer to Unit Descriptor.

### **Pre-Requisites**

Not applicable.

### **Employability Skills Information**

This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

|                                                                   |                                                                                                                                                                                                                                                                                                                  |
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| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| 1. Plan and prepare for operations | 1.1. Access, interpret and apply <b>compliance documentation</b> relevant to the work activity<br>1.2. Obtain, interpret and clarify/confirm <b>work requirements and details</b> in the form of shift briefings, handover details or work orders before proceeding<br>1.3. Access, interpret and apply geological and survey data required to complete the allocated work in accordance with site procedures<br>1.4. Access and apply <b>safety information and procedures</b> throughout the work                                                                                                                                                                                                                                                               |
| 2. Operate articulated vehicle     | 2.1. Resolve coordination activities with others at the site prior to commencement of, and during, the work activity<br>2.2. Carry out <b>pre-start, start-up</b> , park-up and shutdown procedures<br>2.3. Operate ancillary attachments to the articulated vehicle<br>2.4. Operate articulated vehicle with or without ancillary attachments in accordance with <b>manufacturer's specifications</b> and site procedures<br>2.5. Manage <b>engine power</b> to ensure efficiency of vehicle movement and to minimise damage to the engine and drive line<br>2.6. Recognise and respond to hazardous and emergency situations<br>2.7. Complete work in accordance with the agreed plan and outcomes and within the operating capacity of the articulated vehicle |
| 3. Couple and uncouple trailers    | 3.1. Carry out <b>coupling or uncoupling</b> and check prime mover and trailer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4. Carry out operator maintenance  | 4.1. Carry out equipment inspections and fault finding<br>4.2. Carry out routine operational servicing, lubrication and housekeeping tasks<br>4.3. Carry out minor maintenance<br>4.4. Provide operator support during preparation for, and conduct of, major                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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|  | maintenance tasks<br>4.5.Process <b>records</b> in accordance with site requirements |
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## Required Skills and Knowledge

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

### Required skills

Specific skills are required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes the ability to carry out the following as required to drive a heavy combination vehicle:

- apply legislative, organisation and site requirements and procedures for driving a heavy combination vehicle
- apply operational safety requirements
- access, interpret and apply technical information
- maintain equipment records
- use relevant hand tools
- apply diagnostic techniques
- communicate effectively
- apply environmental constraints related to specified operations

### Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes knowledge of the following as required to drive a heavy combination vehicle:

- site and equipment safety requirements
- articulated vehicle operational procedures
- basic site geological and survey data
- site operational procedures
- equipment and trailer characteristics, technical capabilities and limitations
- articulated vehicle maintenance requirements/procedures
- vehicle record systems
- communication systems
- site environmental requirements and constraints related to the articulated vehicle

## 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.

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| <b>Overview of assessment</b>                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b> | <p>The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following:</p> <ul style="list-style-type: none"> <li>• knowledge of the requirements, procedures and instructions to drive a heavy combination vehicle</li> <li>• implementation of requirements, procedures and techniques for the safe, effective and efficient driving of a heavy combination vehicle</li> <li>• working with others to undertake and drive a heavy combination vehicle that meets all of the required outcomes</li> <li>• consistent, timely driving of a heavy combination vehicle that safely, effectively and efficiently meets the required outcomes</li> </ul>                                             |
| <b>Context of and specific resources for assessment</b>                                             | <ul style="list-style-type: none"> <li>• This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills.</li> <li>• Assessment of this competency requires typical resources normally used in a resources and infrastructure sector environment. Selection and use of resources for particular worksites may differ due to the site circumstances.</li> <li>• The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job.</li> </ul> |

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|                                            | <ul style="list-style-type: none"> <li>• Customisation of assessment and delivery environment should sensitively accommodate cultural diversity.</li> <li>• Aboriginal people and other people from a non English speaking background may have second language issues.</li> <li>• Where applicable, physical resources should include equipment modified for people with disabilities. Access must be provided to appropriate learning and/or assessment support when required.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Method of assessment</b>                | <p>This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods:</p> <ul style="list-style-type: none"> <li>• written and/or oral assessment of the candidate's required knowledge</li> <li>• observed, documented and/or first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> <li>• implementation of appropriate requirements, procedures and techniques for the safe, effective and efficient achievement of required outcomes</li> <li>• consistent achievement of required outcomes</li> </ul> </li> <li>• first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> <li>• working with others to undertake and drive heavy combination vehicles</li> </ul> </li> </ul> |
| <b>Guidance information for assessment</b> | Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## 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.

|                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| <b>Compliance documentation</b> may include:          | <ul style="list-style-type: none"> <li>• legislative, organisation and site requirements and procedures</li> <li>• manufacturer's guidelines and specifications</li> <li>• Australian standards</li> <li>• Employment and workplace relations legislation</li> <li>• Equal Employment Opportunity and Disability Discrimination legislation</li> </ul>                                                                                                                                                                                                                         |
| <b>Work requirements and details</b> may include:     | <ul style="list-style-type: none"> <li>• articulated vehicle identification/allocation</li> <li>• nature and scope of work</li> <li>• route</li> <li>• working conditions</li> <li>• achievement targets</li> <li>• site lighting arrangements</li> <li>• equipment defects</li> <li>• hazards and potential hazards</li> <li>• coordination requirements/issues</li> <li>• shift briefings</li> <li>• handover details</li> <li>• work orders</li> </ul>                                                                                                                      |
| <b>Safety information and procedures</b> may include: | <ul style="list-style-type: none"> <li>• use of seat belts</li> <li>• security of door</li> <li>• conditions of brakes and braking system (air pressure)</li> <li>• load characteristics</li> <li>• vehicle speed</li> <li>• fluid levels</li> <li>• safety requirements, including: <ul style="list-style-type: none"> <li>• use of authorised cargo restraining equipment</li> <li>• observing authorised parking areas</li> <li>• correct distances between vehicles</li> <li>• observing site traffic rules</li> <li>• passenger safety and control</li> </ul> </li> </ul> |

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|                                                             | <ul style="list-style-type: none"> <li>• load security and safety</li> <li>• transport rules</li> <li>• operations, signals, procedures</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Pre-start procedures</b> may include:                    | <ul style="list-style-type: none"> <li>• fluid levels, including fuel, engine oil, brake fluid, coolant, clutch / transmission fluid and windscreen, washer fluid</li> <li>• windows and mirrors for clear visibility</li> <li>• tyres and wheels (air pressure, tyre damage, illegal tread depth and condition, abnormal wear pattern and tyre compatibility)</li> <li>• fan belts</li> <li>• seat belts</li> <li>• door hatches and latches</li> <li>• battery and connections</li> <li>• visible and current registration and licences</li> <li>• spare wheel</li> <li>• wheel nuts</li> <li>• rear guards</li> <li>• warning horn</li> </ul> |
| <b>Start-up procedures</b> may include:                     | <ul style="list-style-type: none"> <li>• articulates (head heavy mediums, clearances, indicators, hazards, reversing</li> <li>• brakes</li> <li>• heating and ventilation</li> <li>• instruments and gauges</li> <li>• windscreen washers and wipers</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Manufacturer's specifications</b> may include:           | <ul style="list-style-type: none"> <li>• engine crank/start</li> <li>• idling</li> <li>• engine rpm</li> <li>• operating temperatures</li> <li>• torque range</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Engine power</b> may include:                            | <ul style="list-style-type: none"> <li>• selecting gear ratio to achieve smooth take-off</li> <li>• changing gears to maintain specified torque range at all speeds</li> <li>• utilising engine retarder</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Trailer coupling, uncoupling</b> procedures may include: | <ul style="list-style-type: none"> <li>• selection of an appropriately firm and level parking area</li> <li>• applying parking brakes</li> <li>• ensuring turn-table jaw release is locked/unlocked</li> <li>• turn-table lock and trailer wheel chocks</li> <li>• compatibility of turn-table and trailer ring pin</li> <li>• alignment of prime-mover, turn-table and</li> </ul>                                                                                                                                                                                                                                                               |

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|                             | <ul style="list-style-type: none"><li>trailer skid-pad</li><li>connecting brake service, emergency lines, auxiliary air and electrical lines</li><li>inspecting and testing air brakes, trailer brakes, lock status of turn-table jaw release</li><li>securing and testing trailer landing legs</li></ul> |
| <b>Records</b> may include: | <ul style="list-style-type: none"><li>log-on/off</li><li>activity recording</li><li>trip records</li><li>refuelling information</li></ul>                                                                                                                                                                 |

## Unit Sector(s)

Vehicle Operations

## Competency field

Refer to Unit Sector(s).

## Co-requisite units

Not applicable.