



**Australian Government**

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

# **AURM240174A Prepare and service a light competition vehicle**

**Release: 1**

## AURM240174A Prepare and service a light competition vehicle

### Modification History

Not Applicable

### Unit Descriptor

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| <b>Unit descriptor</b> | <p>This unit of competency describes the skills and knowledge required to prepare and service an already assembled light competition vehicle in the workshop or at an event.</p> <p>It requires the ability to use skills to prepare the competition vehicle in accordance with team requirements and event supplementary regulations, including cleaning, securing, shielding and checking the vehicle.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.</p> |
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### Application of the Unit

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| <b>Application of the unit</b> | <p>This unit applies to individuals who undertake the preparation of a light competition vehicle in a motorsports environment.</p> <p>For the purposes of this unit of competency, light competition vehicles are vehicles under 300 kg unladen weight, such as a go-carts, motorbikes and jet skis.</p> <p>Competition vehicles can be described as vehicles which compete in any motorsport event of a competitive nature.</p> |
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### Licensing/Regulatory Information

Refer to Unit Descriptor

## Pre-Requisites

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|---------------------------|--|--|
| <b>Prerequisite units</b> |  |  |
|                           |  |  |

## Employability Skills Information

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| <b>Employability skills</b> | This unit contains employability skills. |
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## 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. Assessment of performance is to be consistent with the evidence guide. |
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## Elements and Performance Criteria

| ELEMENT                                    | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Prepare for work                        | <ul style="list-style-type: none"><li>1.1. Identify job requirements</li><li>1.2. Identify specifications for required operating conditions and supplementary regulations</li><li>1.3. Identify steps and stages in the vehicle reparation process</li><li>1.4. Identify procedures for minimising waste material</li><li>1.5. Clean work area and lay out to meet job requirements</li><li>1.6. Organise and check tooling and equipment for safe and effective operation</li><li>1.7. Observe occupational health and safety (OHS) requirements throughout the work</li><li>1.8. Report any problems with the work area or the operation of the equipment to appropriate persons</li></ul> |
| 2. Prepare competition vehicle             | <ul style="list-style-type: none"><li>2.1. Clean competition vehicle</li><li>2.2. Identify vehicle securing locations</li><li>2.3. Fit and secure vehicle transportation devices, components and covers</li><li>2.4. Shield vehicle components, as appropriate</li><li>2.5. Report any problems with vehicle to appropriate persons</li></ul>                                                                                                                                                                                                                                                                                                                                                |
| 3. Check competition vehicle               | <ul style="list-style-type: none"><li>3.1. Check and top-up vehicle fluids</li><li>3.2. Remove temporary bungs and covers</li><li>3.3. Conduct engine pre-start checks</li><li>3.4. Check pressures and temperatures and for noises and leaks</li><li>3.5. Check sub-assembly and systems operation</li><li>3.6. Report potential or existing problems to appropriate persons</li></ul>                                                                                                                                                                                                                                                                                                      |
| 4. Clean up work area and maintain records | <ul style="list-style-type: none"><li>4.1. Maintain tooling and return to storage</li><li>4.2. Pack and store surplus components/consumables</li><li>4.3. Clean vehicle</li><li>4.4. Complete team documentation</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

## Required Skills and Knowledge

**REQUIRED SKILLS AND KNOWLEDGE**

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

**Required skills**

Required skills include:

- technical skills to the level required to use workplace technology, including tooling, equipment, calculators and measuring devices
- communication skills to the level required to communicate ideas and information to enable clarification of requirements, coordination of work with supervisors and other team members, and reporting of work outcomes and problems
- literacy skills to the level required collect, organise, report and understand information related to competition vehicle preparation, team requirements, manufacturer/component supplier specifications, plans and safety procedures
- numeracy skills to the level required to use mathematical ideas and techniques to correctly complete measurements and calculations required during preparation of a competition vehicle
- problem-solving skills to the level required to use checking and inspection techniques to anticipate problems in order to work efficiently and effectively
- team skills to the level required to work with others to foster the team by recognising dependencies and using cooperative approaches to optimise workflow and productivity
- approaches to optimise workflow within strict timeframes
- planning skills to the level required to plan and organise activities, including preparation and layout of the work area, tools and equipment, to avoid backtracking, workflow interruptions or wastage

**Required knowledge**

Required knowledge includes:

- team requirements/job specifications
- work area and component layouts
- cleaning methods and precautions
- types of securing devices and securing methods
- types of shielding devices and shielding methods
- record keeping techniques
- team procedures for reporting equipment faults and component defects
- workplace guidelines
- team OHS policies and procedures
- applicable commonwealth, state or territory legislation, regulations, standards and codes of practice, including OHS, personal safety and environment, relevant to preparing and servicing a light competition vehicle



## Evidence Guide

### 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

Assessors must be satisfied that the candidate can competently and consistently:

- apply team requirements, controlling body and category rules and supplementary regulations
- correctly apply and use safety equipment and personal protective equipment
- follow task instructions and inspection processes to:
  - minimise the risk of injury to self and others
  - prevent damage to competition vehicle
  - achieve required outcomes within team time and quality standards
- correctly prepare and service a light competition vehicle on a minimum of two (2) occasions covering each of the following:
  - cleaning of vehicle
  - conducting vehicle checks
  - assisting in setting vehicle baseline configuration
- work effectively with others
- modify activities to cater for variations in workplace context and environment.

#### Context of, and specific resources for assessment

- The application of competency is to be assessed in the workplace or a simulated environment that reflects as far as possible the actual working environment.
- Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints.
- Assessment is to comply with relevant regulatory requirements, including specified Australian standards.
- Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability.
- The following resources should be made available:

| <b>EVIDENCE GUIDE</b>                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                            | <ul style="list-style-type: none"> <li>• non-complex competition vehicles</li> <li>• work instructions and deadlines</li> <li>• tools, materials and equipment</li> <li>• team procedures</li> <li>• safety procedures and regulations</li> <li>• quality standards.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Method of assessment</b>                | <ul style="list-style-type: none"> <li>• Assessment must satisfy the endorsed Assessment Guidelines of this Training Package.</li> <li>• Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of Required Skills and Knowledge.</li> <li>• Assessment methods must be by direct observation of tasks and include questioning on Required Skills and Knowledge to ensure its correct interpretation and application.</li> <li>• Assessment may be applied under project-related conditions (real or simulated) and require evidence of process.</li> <li>• 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.</li> <li>• Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role.</li> </ul> |
| <b>Guidance information for assessment</b> | Assessment processes and techniques must be culturally sensitive and appropriate to the language and literacy capacity of the candidate and the work being performed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## Range Statement

| <b>RANGE STATEMENT</b>                                                                                                                                                                                                                                                                                                                                                                              |
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| <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. 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>RANGE STATEMENT</b>            |                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Light competition vehicles</b> | <p>Light competition vehicles may include:</p> <ul style="list-style-type: none"> <li>• motorcycles</li> <li>• watercraft modified or built specifically for competition</li> <li>• go-carts</li> <li>• motorbikes</li> <li>• jet skis</li> </ul>                                                                                                                    |
| <b>Ancillary systems</b>          | <p>Ancillary systems may include:</p> <ul style="list-style-type: none"> <li>• pneumatic</li> <li>• fluid</li> <li>• communications</li> <li>• electrical/electronic</li> <li>• fire systems</li> </ul>                                                                                                                                                              |
| <b>Critical components</b>        | <p>Critical components may include:</p> <ul style="list-style-type: none"> <li>• electronic control units</li> <li>• data acquisition system components</li> <li>• communication equipment</li> <li>• circuit breakers, and relay and isolation switches</li> <li>• fuel tank/cell</li> <li>• pumps and reservoirs</li> <li>• fire bottles and controller</li> </ul> |
| <b>Securing methods</b>           | <p>Securing methods may include:</p> <ul style="list-style-type: none"> <li>• general fasteners (e.g. bolts, screws and rivets)</li> <li>• specialist motorsport fasteners (e.g. dzus fasteners)</li> <li>• line clamps</li> </ul>                                                                                                                                   |
| <b>Shielding</b>                  | <p>Shielding may include protection from:</p> <ul style="list-style-type: none"> <li>• heat</li> <li>• vibration</li> <li>• radio frequency interference</li> <li>• impact</li> </ul>                                                                                                                                                                                |
| <b>Cleaning methods</b>           | <p>Cleaning methods may include:</p> <ul style="list-style-type: none"> <li>• solvent baths</li> <li>• chemical cleaning</li> <li>• pressure cleaning</li> <li>• bead blasting</li> </ul>                                                                                                                                                                            |

| <b>RANGE STATEMENT</b>            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OHS requirements</b>           | <p>OHS requirements are to be in accordance with applicable commonwealth, state or territory legislation and regulations, and organisational safety policies and procedures, and may include:</p> <ul style="list-style-type: none"> <li>• personal protective equipment and clothing, including closed shoes, long trousers, fire-retardant gloves, crash helmets and other equipment</li> <li>• safety equipment</li> <li>• first aid equipment</li> <li>• hazard and risk control</li> <li>• control of hazardous materials and substances</li> <li>• manual handling, including shifting, lifting and carrying</li> <li>• emergency procedures</li> <li>• material safety management systems</li> <li>• team requirements</li> <li>• manufacturer specifications</li> <li>• local safe operating procedures</li> </ul> |
| <b>Legislative requirements</b>   | <p>Legislative requirements are to be in accordance with applicable commonwealth, state or territory legislation, regulations, certification requirements and codes of practice, and may include:</p> <ul style="list-style-type: none"> <li>• award and enterprise agreements</li> <li>• industrial relations</li> <li>• Australian standards</li> <li>• confidentiality and privacy</li> <li>• OHS</li> <li>• the environment</li> <li>• equal opportunity</li> <li>• anti-discrimination</li> <li>• duty of care</li> </ul>                                                                                                                                                                                                                                                                                             |
| <b>Tooling and equipment</b>      | <p>Tooling and equipment may include:</p> <ul style="list-style-type: none"> <li>• component supplier specified tooling</li> <li>• non-destructive testing equipment</li> <li>• measuring devices</li> <li>• hand and power tooling</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Information and procedures</b> | <p>Information and procedures may include:</p> <ul style="list-style-type: none"> <li>• controlling body rules, category rules and</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

**RANGE STATEMENT**

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|  | <p>supplementary regulations</p> <ul style="list-style-type: none"> <li>team procedures and standards relating to: <ul style="list-style-type: none"> <li>preparing competition vehicles</li> <li>reporting and communication</li> <li>use of tooling and equipment</li> <li>emergency service contacts and team persons emergency contacts</li> <li>team emergency and event procedures for accidents or injury</li> </ul> </li> <li>work instructions, including worksheets, material safety data sheets (MSDS), assembly procedures, plans, drawings, designs and checklists</li> <li>manufacturer/component supplier specifications and application procedures for test equipment and material</li> <li>Australian Design Rules (where applicable)</li> <li>safety body publications</li> <li>environmental, hazardous chemicals and dangerous goods legislation and local requirements relating to the disposal and use of fuels, lubricants, coolants and cleaning agents</li> </ul> |
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**Unit Sector(s)**

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|--------------------|------------|
| <b>Unit sector</b> | Motorsport |
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**Co-requisite units**

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|---------------------------|--|--|
| <b>Co-requisite units</b> |  |  |
|                           |  |  |
|                           |  |  |

## Competency field

|                  |  |
|------------------|--|
| Competency field |  |
|------------------|--|