



Australian Government

AURVTS3005 Fabricate vehicle body panels and components

Release 1

AURVTS3005 Fabricate vehicle body panels and components

Modification History

Release	Comment
Release 1	New unit of competency

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes required to measure, develop patterns and templates, and carry out panel fabrication activities to produce body panels and components. It includes the identification of panel shapes, preparation for work, selection of material, use of production techniques, and use of specialist tools when fabricating vehicle body panels or components to specification. Licensing, legislative, regulatory or certification requirements may apply to this unit in some jurisdictions. Users are advised to check with the relevant regulatory authority.
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Application of the Unit

Application of the unit	Work applies to the vehicle restoration industry and the fabrication of panels or panel sections that may be needed during a restoration process. Work requires individuals to demonstrate judgement and problem-solving skills in managing own work activities and contributing to a productive team environment.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	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 required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge and/or 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. Prepare for work	1.1. Work instructions are used to determine job requirements 1.2. Legal, workplace health and safety (WHS) and environmental requirements, policies and procedures, and manufacturer and component specifications are identified and complied with 1.3. Personal protective equipment, tools and equipment, and materials are selected and checked for correct operation
2. Produce patterns and templates	2.1. Paper patterns are produced from sample panel or simulated frame, indicating panel size, panel shapes and all folds and edges 2.2. Templates are produced from sample panel or simulated frame 2.3. Difference between convex and concave shapes is correctly identified
3. Cut material	3.1. Panel steel or aluminium sections are selected and checked for quality 3.2. Patterns and templates are transferred to steel or aluminium sheet surface 3.3. Selected hand tools are used to cut steel or aluminium to pattern and panel specification 3.4. Panels are filed to remove sharp edges
4. Shape panels	4.1. Panel shaping equipment and hand tools are selected, including 'English' wheeling machine 4.2. Required shapes are identified and fabricated to pattern specification, following WHS and workplace environmental practices 4.3. Shaped panel sections are checked against pattern and template specifications for quality finish and conformity
5. Evaluate and check fabricated panel	5.1. Fabricated panel sections are inspected for quality finish and fits to sample panel or frame 5.2. Panels are fitted to vehicle or frame without distortion
6. Clean up work area and maintain equipment	6.1. Material that can be reused is collected and stored according to workplace sustainability practices 6.2. Waste materials are removed following workplace procedures

	6.3. Equipment and work area are cleaned and inspected for serviceable condition according to workplace procedures 6.4. Faulty tools and equipment are identified and tagged according to workplace procedures 6.5. Tools and equipment are cleaned and maintained according to workplace procedures
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Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- communication skills to:
 - follow verbal instructions
 - follow job sheets and work orders
- initiative and enterprise skills to recognise a workplace problem or potential problem and take action
- learning skills to identify sources of information, assistance and expert knowledge to expand skills, knowledge and understanding
- literacy skills to:
 - understand quality procedures
 - read and follow information in written job instructions, specifications, standard operating procedures, charts, lists, drawings and other reference documents
 - obtain and record measurements
- numeracy skills to measure and calculate material, size, shape and specifications
- planning and organising skills to:
 - plan own work requirements and prioritise actions to achieve required outcomes and ensure tasks are completed on time
 - identify risk factors and take action to minimise them
- problem-solving skills to refer problems outside area of responsibility to appropriate person and suggest possible causes
- self-management skills to:
 - select and use appropriate equipment, materials, processes and procedures
 - recognise limitations and seek timely advice
 - follow workplace documentation, such as codes of practice and operating procedures
- teamwork skills to apply knowledge of own role to complete activities efficiently to support team activities and tasks
- technical skills to use workplace tools and equipment relating to fabricating panels, including the use of specialist tools and equipment
- technology skills to operate 'English' wheeling machine and specialist panel fabrication tools

Required knowledge

- WHS regulations and requirements relating to fabrication process
- personal safety requirements relating to fabricating vehicle body panels and components
- equipment maintenance procedures
- procedures for the correct use of panel fabrication specialist equipment
- industry standards, customer requirements and workplace quality procedures relating to the fabrication of panel sections

REQUIRED SKILLS AND KNOWLEDGE

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

- techniques for producing paper patterns and templates
- marking and cutting out procedures
- wheeling and shaping techniques
- features of convex and concave shapes

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, the 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	The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy all of the requirements of the performance criteria and required skills and knowledge. A person who demonstrates competency in this unit must be able to: • observe safety procedures and requirements • select methods and techniques appropriate to the circumstances • apply vehicle protection methods • select the equipment most appropriate to the circumstances • complete panel fabrication to match sample panel or simulated frame.
Context of, and specific resources for assessment	Competency is to be assessed in the workplace or a simulated workplace environment that accurately reflects performance in a real workplace setting Assessment is to occur: • using standard workplace practices and procedures • following safety requirements • applying environmental constraints. Assessment is to comply with relevant: • regulatory requirements • Australian standards • industry codes of practice. The following resources must be made available for the assessment of this unit: • workplace location or simulated workplace • materials relevant to panel fabrication processes • equipment, hand and power tools appropriate to panel fabrication processes • panel specifications and work instructions.
Method of assessment	Assessment must satisfy the endorsed Assessment Guidelines of this Training Package. Assessment methods must confirm consistency and accuracy of

EVIDENCE GUIDE

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Overview of assessment

performance (over time and in a range of workplace relevant contexts) together with the application of required skills and knowledge.

Assessment methods must be by direct observation of tasks and include questioning on required skills and knowledge to ensure correct interpretation and application.

Competence in this unit may be assessed in conjunction with other units which together form part of a holistic work role.

Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate the needs of diverse clients.

Assessment processes and techniques must be culturally sensitive and appropriate to the language, literacy and numeracy capacity of the candidate and the work being performed.

Range Statement

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, 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.

Workplace health and safety requirements may include:

- correct use of tools and equipment
- workplace first aid equipment
- safe handling of material
- hazardous materials and substances
- personal safety
- PPE
- use of fire-fighting equipment
- workplace safety.

Environmental requirements may include:

- waste management
- noise control
- dust control
- clean-up management.

Tools and equipment may include:

- hand and power tools
- panel shaping hammers
- sand bags
- body sweeps
- timber blocks
- clamps.

Materials may include:

- mild steel sheeting
- aluminium sheeting
- paper for pattern
- cardboard for templates
- cleaning materials.

Quality may include:

- industry standard
- workplace finish quality standard
- original vehicle manufacturer finish and surface standard.

Unit Sector(s)

Competency field	Vehicle body
Unit sector	Technical – Fabrication

Custom Content Section

Not applicable.