



Australian Government

AURVTS005 Fabricate vehicle body panels and components

Release: 1

AURVTS005 Fabricate vehicle body panels and components

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to measure, develop patterns and templates, and fabricate body panels and components. It involves preparing for the task, selecting and using specialist tools and equipment, selecting and cutting materials according to patterns, templates and specifications, preparing cut edges, fabricating panels, and completing workplace processes and documentation.

It applies to those working in the automotive service and body repair industry.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Competency Field

Vehicle Body

Unit Sector

Technical - Fabrication

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold and italicised text is used, further information is detailed in the range of conditions section.
1. Prepare to fabricate vehicle body panel and components	1.1 Job requirements are determined from workplace instructions 1.2 Manufacturer specifications and workplace procedures are accessed and interpreted 1.3 Panel materials are identified from workplace instructions and inspected for quality

Elements Elements describe the essential outcomes.	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold and italicised text is used, further information is detailed in the range of conditions section.
	1.4 Hazards associated with the work are identified and risks are managed 1.5 Fabrication <i>tools and equipment</i> are identified, selected and checked for serviceability 1.6 Work is planned to identify methods to fabricate vehicle body panel and components, minimise waste, and use time efficiently
2. Produce patterns and templates	2.1 Workplace procedures and <i>safety and environmental requirements</i> are identified and followed 2.2 <i>Paper patterns</i> are produced from sample panel or simulated frame 2.3 Templates are produced to fit sample panel or simulated frame 2.4 Convex and concave shapes are correctly identified when developing templates and paper patterns
3. Cut material	3.1 Panel steel or aluminium sections needed for the fabrication are selected and inspected for quality 3.2 Paper patterns and templates are transferred and secured to steel or aluminium sheet surface ready for cutting 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 Required shapes are fabricated to pattern specification, following safety and environmental requirements and workplace procedures 4.2 Shaped panel sections are checked against pattern and template specifications for quality finish and conformity 4.3 Panels are fitted to vehicle or frame without distortion
5. Complete work processes	5.1 Final inspection is made to ensure work meets workplace expectations and panel is presented ready for use 5.2 Work area is cleaned, waste and non-recyclable materials are disposed of, and recyclable material is collected and stored 5.3 Tools and equipment are checked, reported if faulty, and stored according to workplace procedures 5.4 Workplace documentation is processed according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance and are not explicit in the performance criteria.

Skills	Description
Learning skills to:	locate specifications and relevant information efficiently.
Writing skills to:	legibly and accurately fill out workplace documentation.
Oral communication skills to:	- clarify instructions and procedures - clearly report quality issues and job outcomes.
Numeracy skills to:	- read tape measures and rulers - measure and calculate panel material, size, shape and specifications - use basic mathematical operations, including addition and subtraction, to calculate panel material quantity.
Planning and organising skills to:	plan own work requirements and prioritise actions to achieve required outcomes and ensure tasks are completed within workplace timeframes.
Technology skills to:	use specialist tools and equipment to fabricate body panels and components.

Range of Conditions

This section specifies work environments and conditions that may affect performance.

Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Bold italicised wording, if used in the performance criteria, is detailed below.

<i>Panel materials</i> must include:	- mild steel sheeting - aluminium sheeting - paper for pattern - cardboard for templates.
<i>Tools and equipment</i> must include:	- specialist hand tools - panel shaping equipment - English wheeling machine - specialist cutting equipment.
<i>Safety and environmental requirements</i> must include:	- work health and safety (WHS) and occupational health and safety (OHS) requirements, including procedures for: - selecting and using personal protective equipment (PPE) - using tools and equipment

	• environmental requirements, including procedures for trapping, storing and disposing of waste materials.
Paper patterns must indicate:	• panel size • panel shape • all folds and edges required for fabrication process.

Unit Mapping Information

Equivalent to AURVTS3005 Fabricate vehicle body panels and components

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>

Assessment Requirements for AURVTS005 Fabricate vehicle body panels and components

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Performance Evidence

Before competency can be determined, individuals must demonstrate they can perform the following according to the standard defined in this unit's elements, performance criteria, range of conditions and foundation skills:

- fabricate two different vehicle body panels and their components, including vehicle door skin lower half.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to fabricating vehicle body panels and components, including procedures for:
 - selecting and using personal protective equipment (PPE)
 - using tools and equipment
- environmental requirements, including procedures for trapping, storing and disposing of waste materials
- panel fabrication methods and techniques, including:
 - type of panel materials and application
 - marking out and cutting procedures
 - type and correct use of panel fabrication tools and equipment
 - techniques for producing paper patterns and templates
 - panel fabrication methods
 - wheeling and shaping techniques
- procedures for final inspection of fabricated body panels and components.

Assessment Conditions

Assessors must satisfy NVR/AQTF assessor requirements.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessment must include direct observation of tasks.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the vehicle body panels and components that they have fabricated, e.g. work orders.

Assessors must verify performance evidence through questioning on skills and knowledge to ensure correct interpretation and application.

The following resources must be made available:

- automotive repair workplace or simulated workplace
- workplace instructions
- PPE required to fabricate body panels
- materials to fabricate body panels and components
- two different vehicle body panels and components requiring fabrication
- tools, equipment and materials appropriate for fabricating vehicle body panels and components.

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