



Australian Government

AURVTN022 Repair vehicle body misalignment

Release: 1

AURVTN022 Repair vehicle body misalignment

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to repair vehicle misalignment. It involves preparing for the task, selecting and using specialist tools and equipment, setting up vehicle body measuring equipment, taking measurements, identifying and repairing vehicle body misalignment to pre-paint condition, and completing workplace processes and documentation.

It applies to those working in the automotive 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 - Body

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 for work	1.1 Job requirements are determined from workplace instructions 1.2 Vehicle specifications, and original equipment manufacturer (OEM) or authorised agency's recommended repair procedures and methods, are accessed and interpreted 1.3 Hazards associated with the work are identified and risks are

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	managed 1.4 <i>Tools and equipment</i> are selected and checked for serviceability 1.5 Work area is prepared and work is planned to minimise waste and use time efficiently
2. Perform pre-repair measurements	2.1 Measuring equipment is selected, prepared and attached to the vehicle according to equipment manufacturer instructions and <i>safety and environmental requirements</i> 2.2 Pre-repair <i>three-dimensional measurements</i> are completed without causing damage to system or components, and extent of misalignment is identified and recorded 2.3 Results of measurements and visual and physical inspections are used to determine type of damage and misalignment repair required
3 .Repair misalignment	3.1 Misalignment is repaired using appropriate <i>repair method</i> 3.2 Misalignment repair is inspected and measured and results are checked against vehicle OEM or authorised agency's specifications and tolerances
4. Complete work processes	4.1 Final inspection is made to ensure work meets workplace expectations and manufacturer specifications, and vehicle is presented ready for use 4.2 Work area is cleaned, waste and non-recyclable materials are disposed of, and recyclable material is collected and stored 4.3 Tools and equipment are checked, reported if faulty, and stored according to workplace procedures 4.4 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.

Skills	Description
Oral communication skills to:	- clarify instructions and procedures - clearly report issues or outcomes.
Numeracy skills to:	- set up equipment and identify repair measurements - use basic mathematical operations, including addition and subtraction, to calculate vehicle misalignments and tolerances.
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 measuring and alignment equipment.

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>Tools and equipment</i> must include:	- personal protective equipment (PPE) - universal measuring, jigging and alignment bench system - repair hand and power tools - OEM or authorised agency's approved welding equipment and techniques - hydraulic or pneumatic repair equipment and fittings.
<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 PPE - manually handling measuring equipment - using tools and equipment - environmental requirements, including procedures for trapping, storing and disposing of waste materials.
<i>Three-dimensional measurements</i> must include:	- length - height - width.
<i>Repair method</i> must include:	- hydraulic reforming - welding - mechanical fastening - riveting - removing and replacing components.

Unit Mapping Information

Equivalent to AURVTN3022 Repair vehicle body misalignment

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 AURVTN022 Repair vehicle body misalignment

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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:

- repair vehicle body misalignment, including two of the following sections:
 - vehicle front chassis section
 - rear panels and floor section
 - side sill and pillar section.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to repairing vehicle body misalignment, including procedures for:
 - selecting and using personal protective equipment (PPE)
 - manually handling measuring equipment
 - using tools and equipment
- environmental requirements, including procedures for trapping, storing and disposing of waste materials
- original equipment manufacturer (OEM) or authorised agency's recommended repair procedures for removing, replacing and realigning vehicle bodies
- following vehicle design characteristics and their implications for repair and realignment methods:
 - mono
 - unitised
 - chassis
 - space frame

- types of misalignment damage, including:
 - under and upper body damage
 - sway
 - sag
 - twist
 - kick-up and kick-down
 - mash and diamond
- methods and techniques for identifying misalignment damage, including:
 - visual, mechanical and physical checking
 - use of measuring and alignment equipment
- repair techniques, including:
 - panel beating, welding, mechanical fastening, riveting, removing and aligning vehicle body sections
 - correct use of tools and equipment, including hydraulic or pneumatic repair equipment
 - digital and non-digital measuring equipment and dedicated jigs
 - welding techniques
 - hydraulic reforming
- procedures for final inspection of vehicle body misalignment repair.

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 misalignments that they have repaired, e.g. repair 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 repair vehicle body misalignment
- OEM or authorised agency repair procedures
- vehicle specifications
- welding equipment
- measuring system
- straightening equipment
- two misaligned vehicle body sections as specified in the performance evidence

- tools, equipment and materials appropriate for repairing vehicle misalignment.

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