



Australian Government

AURTTY001 Repair vehicle chassis, frame and associated components

Release: 1

AURTTY001 Repair vehicle chassis, frame and associated components

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to inspect, repair and align chassis, frame and components to vehicles. It involves preparing for the task, selecting and using specialist tools and equipment, identifying damage, taking pre-repair measurements, conducting repairs, taking post-repair measurements according to original equipment manufacturer (OEM) or authorised agency specifications, 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

Mechanical Miscellaneous

Unit Sector

Technical - Chassis and Frame

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 repair vehicle chassis, frame and associated components	1.1 Job requirements are determined from workplace instructions 1.2 Type of damage is identified, and inspection report is completed and documented according to workplace procedures

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.
	1.3 Repair specifications from OEM or authorised agency are sourced and interpreted 1.4 Hazards associated with the work are identified and risks are managed 1.5 <i>Repair tools and equipment</i> and personal protective equipment (PPE) are selected and checked for serviceability 1.6 Work is planned to identify repair methods, minimise waste and use time efficiently
2. Carry out repairs	2.1 Repair or replacement and alignment activities are carried out according to OEM or authorised agency repair specifications, workplace procedures, and <i>safety and environmental requirements</i> , within industry time lines, and without causing damage to other vehicle components or systems 2.2 Measuring equipment is used to take accurate measurements and to align the chassis, frame and components
3. Complete work processes	3.1 Final inspection is made to ensure work meets workplace expectations and vehicle is presented ready for use 3.2 Work area is cleaned, waste and non-recyclable materials are disposed of, and recyclable material is collected and stored 3.3 Tools and equipment are checked, reported if faulty, and stored according to workplace procedures 3.4 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 appropriate sources of information efficiently.
Writing skills to:	legibly and accurately fill out workplace documentation.
Oral communications skills to:	- ask questions to clarify instructions and procedures - clearly report issues or outcomes relating to repair.

Skills	Description
Numeracy skills to:	• use basic mathematical operations, including addition and subtraction, to calculate tolerances from manufacturer specifications • interpret repair and alignment measurements.
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:	• correctly and safely use specialist repair equipment and tools.

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>Repair tools and equipment</i> must include:	• hydraulic repair equipment • measuring and alignment 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 PPE • using specialist tools and equipment • identifying workplace hazards • environmental requirements, including procedures for trapping, storing and disposing of waste materials.

Unit Mapping Information

Equivalent to AURTTY3001 Repair chassis, frame and associated 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 AURTTY001 Repair vehicle chassis, frame and associated 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:

- repair one chassis and its frame and components, in which the work must involve two of the following types of damage:
 - diamond and twist damage
 - kick-up and kick-down
 - sag
 - mash and sway.

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 chassis, frame and associated components, including procedures for:
 - selecting and using personal protective equipment (PPE)
 - using specialist tools and equipment
 - identifying workplace hazards
- environmental requirements, including procedures for trapping, storing and disposing of waste materials
- steps in repair inspection process
- original equipment manufacturer (OEM) or authorised agency specifications and recommended repair procedures
- features of different types of chassis damage, including:
 - diamond and twist damage

- kick-up and kick-down
- sag
- mash and sway
- procedures for determining chassis reparability
- vehicle design characteristics, including:
 - mono unitised
 - alloy and high strength steel (HSS) chassis
- chassis repair, replacement and alignment techniques
- key characteristics of welding types and techniques
- limitations on drilling and welding to chassis
- type and use of chassis repair tools and equipment, including:
 - application of heat colours, heat crayons and thermal temp gun
 - hydraulic repair equipment
 - equipment maintenance procedures
- measuring and alignment procedures
- type and use of measuring equipment, including:
 - gun sight gauges
 - drop lining
 - trammel gauges
 - tape measures
- final inspection procedures
- work area clean-up and maintenance requirements
- procedures for completing workplace documentation.

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 chassis, frames and components 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 workplace or simulated workplace
- workplace instructions
- OEM specifications and repair instructions
- PPE required to repair chassis, frame and components

- one chassis requiring repair, and its frame and associated components
- measuring and alignment equipment
- tools and equipment appropriate for repairing vehicle chassis, frame and components.

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