



Australian Government

AURVTN028 Identify and repair high strength steel vehicle components

Release: 1

AURVTN028 Identify and repair high strength steel vehicle components

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to locate, identify and repair high strength steel (HSS) vehicle components, including advanced and ultra-high strength steel. It involves preparing for the task, selecting and using specialist tools and equipment, confirming recommended repair procedure from original equipment manufacturer (OEM) or authorised agency, selecting repair procedures and recommended welding method, removing and replacing HSS components, finishing HSS repairs 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. Locate OEM or	1.1 Job requirements are determined from workplace instructions

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.
authorised agency repair procedures	1.2 <i>OEM or authorised agency repair procedures</i> are sourced, interpreted and incorporated into planning process 1.3 Hazards associated with the work are identified and risks are managed 1.4 Recommended repair tools and equipment and personal protective equipment (PPE) are selected and checked for serviceability 1.5 Work is planned to identify required HSS repair methods, minimise waste, and use time efficiently
2. Repair or replace HSS components	2.1 Sections not subject to repair are protected, using approved methods and equipment 2.2 HSS sections to be replaced are identified and removed using OEM or authorised agency recommended removal methods and equipment, workplace procedures, and <i>safety and environmental requirements</i> 2.3 Damaged surfaces are restored to a condition suitable for fitting replacement HSS components 2.4 Vehicle measuring or jigging equipment is used to position replacement HSS component correctly according to OEM or authorised agency specifications 2.5 OEM or authorised agency's surface coatings is protected or reapplied 2.6 Replacement HSS components are aligned and secured within OEM or authorised agency's tolerances
3. Weld HSS components	3.1 Recommended welding equipment for HSS is located and checked for correct operation 3.2 Sample welds are conducted using recommended welding techniques, inspected, and destruction tested for defects according to workplace instructions 3.3 HSS components are refitted using recommended repair methods, materials and equipment, and without causing damage to other systems or components 3.4 Grinding procedures are followed according to OEM or authorised agency and weld material specifications
4. Complete work processes	4.1 Repairs to HSS components are finished to pre-paint condition according to workplace and <i>OEM or authorised agency repair procedures</i> 4.2 Final inspection is made to ensure work meets workplace

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	expectations and manufacturer specifications, and components are presented ready for painting 4.3 Work area is cleaned, waste and non-recyclable materials are disposed of, and recyclable material is collected and stored 4.4 Tools and equipment are checked, tagged and reported if faulty, and stored according to workplace procedures 4.5 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:	- set approved measuring equipment and measure accurately - use basic mathematical operations, including addition and subtraction, to calculate measurements 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.
Problem solving skills to:	identify defects, quality issues and potential problems associated with repairs to HSS components.
Technology skills to:	use specialist removal, alignment, welding and replacement 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>OEM or authorised agency repair procedures</i> must include:	• identifying HSS type and location • visual and physical testing procedures • repair and welding specifications.
<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 vehicle components • using tools and equipment • environmental requirements, including procedures for trapping, storing and disposing of waste materials.

Unit Mapping Information

Equivalent to AURVTN3028 Identify and repair high strength steel 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 AURVTN028 Identify and repair high strength steel vehicle 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:

- identify and repair high strength steel (HSS) components to pre-paint condition on three different damaged vehicles.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to identifying and repairing HSS vehicle components, including procedures for:
 - selecting and using personal protective equipment (PPE)
 - manually handling vehicle components
 - using tools and equipment
- environmental requirements, including procedures for trapping, storing and disposing of waste materials
- original equipment manufacturer (OEM) or authorised agency's:
 - vehicle specifications and measurements
 - approved repair procedures and quality processes
- HSS repair, replacement and welding methods and procedures, including:
 - HSS recommended tools and equipment, including welding equipment
 - types and location of HSS components
 - pre-repair destruction testing of welds on similar material
 - body and panel alignment
 - bonding, riveting and welding
- procedures for protecting vehicle and components during repair work

- procedures for final inspection of HSS 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 damaged HSS vehicle 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 repair workplace or simulated workplace
- workplace instructions
- OEM or authorised agency's approved specifications and recommended repair procedures
- OEM or authorised agency's approved welding equipment
- PPE required to repair HSS components
- three different damaged vehicles requiring HSS component repairs
- tools, equipment and materials appropriate for identifying and repairing HSS vehicle components.

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