



Australian Government

AUMATA004 Diagnose and repair mechanical faults

Release: 1

AUMATA004 Diagnose and repair mechanical faults

Modification History

Release	Comment
Release 1	Unit updated to reflect the new standards for Training Packages Replaces AUMATA3004 Rectify mechanical faults on assembled vehicles

Application

This unit describes the performance outcomes required to diagnose and repair mechanical faults based on recommendations from inspection records.

It applies to those in an automotive manufacturing environment and involves the application of skills and knowledge at a specialist level.

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

Competency Field

Manufacturing - Common

Unit Sector

Technical

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 italicised text is used, further information is detailed in the range of conditions section
1. Plan and prepare for diagnostic and repair activities	1.1 Work instructions, inspection reports, forms and quality requirements are obtained, confirmed with appropriate personnel, and applied 1.2 Tools, equipment and materials are identified, obtained and prepared
2. Undertake diagnostic and repair activities	2.1 Diagnostic and repair activities are carried out according to <i>workplace procedures</i>

Elements	Performance Criteria
	2.2 Inspection reports are interpreted, mechanical faults identified, and corrective action is planned 2.3 Faults are rectified according to specification 2.4 Faults are re-diagnosed to ensure they have been eliminated, and final adjustments are made
3. Complete work processes	3.1 Repair documentation is completed according to workplace procedures 3.2 Work area is cleaned, and materials disposed of or recycled according to workplace requirements 3.3 Tools and equipment are cleaned, checked, maintained and stored according to workplace requirements 3.4 Faulty tools and equipment are identified, tagged and reported 3.5 Work sheets and inspection reports are completed according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Skills	Description
Reading skills to:	- interpret work instructions and workplace procedures - interpret inspection reports, repair manuals and specification sheets.
Writing skills to:	- complete inspection and fault rectification reports - prepare a repair plan - complete faulty equipment tags.
Oral communication skills to:	- inform team members of suitable repair methods used in correcting faults - communicate and receive work instructions.
Numeracy skills to:	interpret job instructions.

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>Workplace procedures</i> must include:	• continuous improvement processes • equipment maintenance and storage • quality guidelines • recording and reporting • use of equipment • work health and safety (WHS) requirements.
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Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bd587669-08b3-4cd5-85f0-f9fa0c6304c1>

Assessment Requirements for AUMATA004 Diagnose and repair mechanical faults

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Performance Evidence

Before competency can be determined, individuals must have competently conducted mechanical rectification to a vehicle and its components on a minimum of two occasions.

Individuals must demonstrate they can:

- locate, interpret and apply relevant work instructions and job specifications
- comply with work health and safety (WHS) requirements relating to diagnosing and repairing mechanical faults
- follow workplace procedures relating to repairing mechanical faults
- use tools and equipment safely when repairing mechanical faults
- communicate and work effectively with others in an automotive manufacturing environment
- repair at least two of the following mechanical faults to specification:
 - ancillary mechanical components
 - brakes
 - engine and drive train
 - fluid leaks
 - steering and suspension
- complete work sheets detailing work activity relating to diagnosing and repairing mechanical faults.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- WHS requirements relating to rectifying mechanical faults
- work instructions and workplace procedures relating to rectifying mechanical faults
- workplace quality standards relating to rectifying mechanical faults
- manufacturing and production techniques relevant to repairing mechanical faults
- tools and equipment used to repair mechanical faults

- common mechanical faults, symptoms and diagnosis techniques
- vehicle mechanical systems, parts and their construction
- vehicle specifications.

Assessment Conditions

Assessors must satisfy SNR/AQTF assessor requirements.

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

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the vehicles that they have worked on, 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 manufacturing workplace or simulated workplace
- work orders and instructions, and workplace procedures relating to rectifying mechanical faults
- WHS requirements relevant to rectifying mechanical faults
- production line of vehicles or components with mechanical faults
- tools and equipment for rectifying mechanical faults
- workplace repair documentation and job specifications.

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