



Australian Government

AUMATE001 Rework faulty production engines

Release: 1

AUMATE001 Rework faulty production engines

Modification History

Release	Comment
Release 1	Unit updated to reflect the new standards for Training Packages Replaces AUMATE3001 Rework production engines

Application

This unit describes the performance outcomes required to rework faulty engines based on test results that identify operating inconsistencies or faults.

It applies to those in an automotive and related component manufacturing environment.

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

Competency Field

Common

Unit Sector

Technical - Engines

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	1.1 <i>Workplace procedures</i> are identified and applied 1.2 Work instructions, including relevant inspection reports and forms and quality requirements, are identified, confirmed and applied 1.3 Tools and equipment for reworking engine are identified and selected, and checked for faults 1.4 Materials appropriate to the work application are identified, obtained and prepared

Elements	Performance Criteria
2. Confirm test findings	2.1 Engine is tested to simulate normal operating conditions 2.2 Computerised or physical tests are conducted on the reported faults of the engine against designated performance specifications 2.3 Results of tests are confirmed and documented
3. Rectify engine fault	3.1 Fault is identified and diagnosed, and suitable repair is planned 3.2 Rectification is applied according to engineering specifications 3.3 Engine is re-tested to ensure rework has eliminated the fault and final adjustments are made 3.4 Engine is transferred to the designated holding area
4. Complete work processes	4.1 Work area is cleaned, and materials disposed of, reused or recycled according to workplace procedures 4.2 Tools and equipment are cleaned, checked, maintained and stored according to workplace procedures 4.3 Faulty equipment is identified, tagged and reported 4.4 Documentation is completed, outlining work conducted and outcome, 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 inspection reports - interpret original equipment manufacturer (OEM) manuals and specification sheets.
Writing skills to:	- complete work sheets and fault rectification reports - prepare a repair plan - complete faulty equipment tags.
Oral communication skills to:	give and receive work instructions.
Numeracy skills to:	interpret job instructions and engineering specifications.
Problem-solving skills to:	identify engine faults from test results.

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 and standards • workplace quality guidelines • guidelines for recording and reporting faults in vehicle engines • use of repair 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 AUMATE001 Rework faulty production engines

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Performance Evidence

Before competency can be determined, individuals must have competently reworked production engines on a minimum of two occasions.

Individuals must demonstrate they can:

- locate, interpret and apply repair information and job specifications
- comply with work health and safety (WHS) requirements relating to the rework of faulty production engines
- follow workplace procedures relating to the repair of engine faults
- use tools and equipment safely
- communicate effectively and safely with others in an engine repair workshop
- handle and place engines safely.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- WHS requirements relevant to repairing engines
- workplace procedures relating to repair of engine faults
- engine repair quality standards
- automotive industry terminology relating to engines and their components
- mechanical principles and functions of engines
- mechanical tools and equipment to repair faulty engines
- engine faults and symptoms
- engine testing techniques and equipment
- engine rework techniques and equipment.

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 engines on which they have worked 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
- original equipment manufacturer (OEM) procedures for repairing engines
- workplace instructions relating to the rework of faulty engines
- engine specifications
- engines with production faults
- tools and equipment for reworking engines.

Links

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