



**Australian Government**

# **AURHTF2001 Inspect heavy commercial vehicle fuel systems and components**

**Release 1**

## **AURHTF2001 Inspect heavy commercial vehicle fuel systems and components**

### **Modification History**

| <b>Release</b>   | <b>Comment</b>         |
|------------------|------------------------|
| <b>Release 1</b> | New unit of competency |

### **Unit Descriptor**

|                        |                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit descriptor</b> | <p>This unit describes the performance outcomes required to inspect heavy commercial vehicle fuel systems and components for the purpose of establishing safe operating conditions and making any repair or maintenance recommendations.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.</p> |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### **Application of the Unit**

|                                |                                                                                                                                                            |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Application of the unit</b> | Work applies to the fuel systems and components of heavy commercial vehicles and may include inspecting fuel systems and components on or off the vehicle. |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|

### **Licensing/Regulatory Information**

Not applicable.

### **Pre-Requisites**

Not applicable.

## Employability Skills Information

|                             |                                          |
|-----------------------------|------------------------------------------|
| <b>Employability skills</b> | This unit contains employability skills. |
|-----------------------------|------------------------------------------|

## Elements and Performance Criteria Pre-Content

|                                                                   |                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Elements describe the essential outcomes of a unit of competency. | Performance criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide. |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Elements and Performance Criteria

| ELEMENT                                                       | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Prepare for inspection                                     | <p>1.1. <b>Workplace instructions</b> are used to determine <b>job requirements</b> relating to inspecting heavy commercial vehicle fuel systems</p> <p>1.2. <b>Workplace health and safety (WHS) requirements</b> are observed and applied throughout the work</p> <p>1.3. <b>Procedures and information</b> relating to heavy commercial vehicles are sourced and interpreted</p> <p>1.4. Appropriate tools and equipment are selected and prepared</p>                                  |
| 2. Inspect fuel systems and components to determine condition | <p>2.1. Work area is checked to ensure safe working conditions</p> <p>2.2. <b>Fuel systems and components</b> are inspected according to workplace or manufacturer requirements and without causing damage to components or systems</p> <p>2.3. Inspection results are compared with manufacturer and component supplier specifications</p> <p>2.4. Inspection findings are reported according to workplace procedures, including recommendations for necessary repairs or adjustments</p> |
| 3. Clean up work area and finalise work processes             | <p>3.1. Tools and equipment are checked and stored according to workplace expectations</p> <p>3.2. <b>Documentation</b> is completed according to workplace procedures</p>                                                                                                                                                                                                                                                                                                                 |

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

- communication skills to:
  - clarify workplace instructions and determine job requirements
  - gain information from appropriate persons and assistance as required
- learning skills to identify sources of information, assistance and expert knowledge
- literacy skills to
  - read, interpret and follow information on written job instructions, specifications, standard operating procedures, charts, lists, drawings and other applicable reference documents
  - follow workplace documentation, such as codes of practice or operating procedures
  - document work performed during inspection operations
- numeracy skills to perform simple measurements and assess tolerances
- planning and organising skills to ensure tasks are completed within an acceptable timeframe
- problem-solving skills to seek information and assistance as required to solve problems
- self-management skills to:
  - select and use appropriate equipment, materials, processes and procedures
  - follow workplace documentation, such as codes of practice or operating procedures
- teamwork skills to apply knowledge of own role to complete activities efficiently to support team activities and tasks
- technical skills to use workplace tools and equipment relating to the inspection of heavy commercial vehicle fuel systems and components
- technology skills to use technology to collect and provide information

#### Required knowledge

- WHS regulations, requirements, equipment and material, and personal safety requirements
- workplace safety procedures related to heavy commercial vehicle movements and pedestrian traffic
- operating principles of heavy commercial vehicle fuel systems
- methods of sourcing information relevant to inspecting heavy commercial vehicle fuel systems
- inspection procedures of heavy commercial vehicle fuel systems and components

## Evidence Guide

### EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

#### Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy all of the requirements of the performance criteria and required skills and knowledge.

A person who demonstrates competency in this unit must be able to:

- observe safety procedures and requirements
- select methods and techniques appropriate to the circumstances
- inspect a range of heavy commercial vehicle fuel systems and components according to workplace, manufacturer and component supplier requirements
- record results of inspection according to workplace requirements.

#### Context of, and specific resources for assessment

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

Assessment is to occur:

- using standard workplace practices and procedures
- following safety requirements
- applying environmental constraints.

Assessment is to comply with relevant:

- regulatory requirements
- Australian standards
- industry codes of practice.

The following resources must be made available for the assessment of this unit:

- workplace location or simulated workplace
- heavy commercial vehicle fuel systems and components relevant to the qualification being sought
- tools and equipment appropriate for the inspection of heavy commercial vehicle fuel systems and components
- specifications and workplace instructions.

**EVIDENCE GUIDE**

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the Training Package.

**Overview of assessment****Method of assessment**

Assessment must satisfy the endorsed Assessment Guidelines of this Training Package.

Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with the application of required skills and knowledge.

Assessment methods must be by direct observation of tasks and include questioning on required skills and knowledge to ensure correct interpretation and application.

Competence in this unit may be assessed in conjunction with other units which together form part of a holistic work role.

Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate the needs of diverse clients.

Assessment processes and techniques must be culturally sensitive and appropriate to the language, literacy and numeracy capacity of the candidate and the work being performed.

## Range Statement

### RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

|                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Workplace instructions</b> may include:             | <ul style="list-style-type: none"> <li>• computer-generated instructions</li> <li>• verbal instructions</li> <li>• written instructions.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Job requirements</b> may include:                   | <ul style="list-style-type: none"> <li>• heavy commercial vehicle fuel systems and component inspection methods, processes and equipment</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Workplace health and safety (WHS) requirements:</b> | <ul style="list-style-type: none"> <li>• are those prescribed under legislation, regulations, codes of practice, and workplace policies and procedures</li> <li>• may include: <ul style="list-style-type: none"> <li>• protective clothing and equipment</li> <li>• use of tools and equipment</li> <li>• handling of material</li> <li>• use of fire-fighting equipment</li> <li>• first aid equipment</li> </ul> </li> <li>• hazard control, including control of hazardous materials and toxic substances.</li> </ul>                                                                                                                                                                                                                                                                                                                  |
| <b>Procedures and information</b> may include:         | <ul style="list-style-type: none"> <li>• safe work procedures relating to the inspection of heavy commercial vehicle fuel systems</li> <li>• verbal, written and graphical instructions</li> <li>• signage</li> <li>• work schedules, plans and specifications</li> <li>• work bulletins or memos</li> <li>• material safety data sheets (MSDS)</li> <li>• diagrams or sketches</li> <li>• regulatory and legislative requirements relating to the automotive industry</li> <li>• Australian Design Rules</li> <li>• engineer's design specifications and instructions</li> <li>• organisation work specifications and requirements</li> <li>• instructions issued by authorised enterprise or external persons</li> <li>• Australian Standards</li> <li>• heavy commercial vehicle inspection requirements and repair manuals.</li> </ul> |
| <b>Fuel systems and</b>                                | <ul style="list-style-type: none"> <li>• fuel tanks and fittings</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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***components*** may include:

- fuel lines
- fuel filters
- fuel pumps
- fuel injectors
- water separators.

***Documentation*** may include:

- job card or work order
- workplace computerised or written customer records and invoice

**Unit Sector(s)**

|                         |                            |
|-------------------------|----------------------------|
| <b>Competency field</b> | Mechanical – Heavy Vehicle |
| <b>Unit sector</b>      | Technical – Fuel systems   |

**Custom Content Section**

Not applicable.