



Australian Government

AURTTF2001 Service petrol fuel systems

Release 1

AURTTF2001 Service petrol fuel systems

Modification History

Release	Comment
Release 1	Replaces AURT203170B Service petrol fuel systems Unit code updated to meet policy requirements Reference to OHS legislation replaced with new WHS legislation Licensing statement added to unit descriptor

Unit Descriptor

Unit descriptor	This unit covers the competence required to carry out servicing on mechanical and basic electric/electronic petrol fuel system/ components. Licensing, legislative, regulatory or certification requirements may apply to this unit in some jurisdictions. Users are advised to check with the relevant regulatory authority.
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Application of the Unit

Application of the unit	The unit includes identification and confirmation of work requirement, preparation for work, servicing of petrol fuel system components and completion of work finalisation processes, including clean-up and documentation. Work requires individuals to demonstrate judgement and problem-solving skills in managing own work activities and contributing to a productive team environment within the scope of this unit. This includes an understanding of the level of work to be performed.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

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

ELEMENT	PERFORMANCE CRITERIA
1. Prepare to service petrol fuel system components	1.1.Nature and scope of work requirements are identified and confirmed 1.2.WHS requirements, including individual State/Territory regulatory requirements and personal protection needs are observed throughout the work 1.3.Procedures and information such as workshop manuals and specifications, and tooling required, are sourced 1.4.Methods appropriate to the circumstances are selected and prepared in accordance with standard operating procedures 1.5.Resources required for servicing are sourced and support equipment is identified and prepared 1.6.Warnings in relation to working with petrol are observed
2. Service petrol fuel system components	2.1.Correct information is accessed and interpreted from manufacturer/component supplier specifications 2.2.Service of petrol fuel system/components are carried out in accordance with manufacturer/component supplier specifications 2.3.Petrol fuel system components service is completed without causing damage to any component or system 2.4.Adjustments made during the service are in accordance with manufacturer/component supplier specifications 2.5.Engine is run and petrol fuel system tested for correct operation
3. Prepare fuel system for normal operation	3.1.Service schedule documentation is completed 3.2.Final inspection is made to ensure safety features are in place 3.3.Final inspection is made to ensure work is to workplace expectations 3.4.Job card is processed in accordance with workplace procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Required knowledge

A working knowledge of:

- WHS regulations/requirements, equipment, material and personal safety requirements
- dangers of working with petrol
- mechanical and electronic fuel systems
- service procedures
- vehicle safety procedures
- types and layout of service/repair manuals (hard copy and electronic)
- enterprise quality procedures
- work organisation and planning processes

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, 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

It is essential that competence is fully observed and there is the ability to transfer the competence to changing circumstances and to respond to unusual situations in the critical aspects of:

- observing safety procedures and requirements
- communicating effectively with others involved in or affected by the work
- selecting methods and techniques appropriate to the circumstances
- completing preparatory activity in a systematic manner
- accurately interpreting the service schedules
- conducting the service of a range of petrol fuel systems in accordance with workplace and manufacturer/component supplier requirements
- completing work in the agreed timeframe
- completing workplace/equipment documentation

Context of, and specific resources for assessment

Application of competence is to be assessed in workplace or simulated worksite

Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints

Assessment is to comply with regulatory requirements, including Australian Standards

The following resources should be made available:

- workplace location or simulated workplace
- material relevant to servicing petrol fuel systems
- equipment, hand and power tooling appropriate to servicing petrol fuel systems
- activities covering mandatory task requirements
- specifications and work instructions

Method of assessment

Assessment must satisfy the endorsed assessment guidelines of the automotive industry's RS&R Training

EVIDENCE GUIDE

	Package Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies Assessment may be applied under project related conditions and require evidence of process Assessment must confirm a reasonable inference that competence is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances It is preferable that assessment reflects a process rather than an event and occurs over a period of time to cover varying quality circumstances. Evidence of performance may be provided by customers, team leaders/members or other persons subject to agreed authentication arrangements Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role
Guidance information for assessment	

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, if used 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.

Servicing procedures

Servicing procedures may be performed on petrol fuel systems in light vehicles, heavy vehicles, motorcycles, marine engines and outdoor power

RANGE STATEMENT	
	equipment
Systems	Systems may be two stroke and/or four stroke, spark ignition fuel systems
Fuel system components	Fuel system components are to include basic EFI and/or carburettors (all positions, electronic, fixed venturi, variable venturi), such as mechanical and/or electrical fuel pumps, engine shutdown systems and electronic/mechanical fuel injectors, fuel filters and associated basic fuel injection components.
Methods	Methods are to include aural, visual and functional assessments (including damage, corrosion, fluid leaks, wear and safety aspects)
WHS	WHS requirements are to be in accordance with legislation/regulations/codes of practice and enterprise safety policies and procedures. This may include protective clothing and equipment, use of tooling and equipment, workplace environment and safety, handling of material, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances
Personal protective equipment	Personal protective equipment is to include that prescribed under legislation/regulations/codes of practice and workplace policies and practices
Safe operating procedures	Safe operating procedures are to include, but are not limited to the conduct of operational risk assessment and treatments associated with vehicular movement, hazardous substances, electrical safety, manual lifting and shifting, working in proximity to others and site visitors
Emergency procedures	Emergency procedures related to this unit are to include, but are not limited to emergency shutdown and stopping of equipment, operating safely in the event of fires, enterprise first aid requirements and site evacuation
Environmental requirements	Environmental requirements are to include but are not limited to waste management, noise, dust and

RANGE STATEMENT	
	clean-up management
Quality requirements	Quality requirements are to include, but are not limited to regulations, including Australian Standards, internal company quality policy and standards and enterprise operations and procedures
Statutory/regulatory authorities	Statutory/regulatory authorities may include Federal, State/Territory and local authorities administering acts, regulations and codes of practice
Tooling and equipment	Tooling and equipment may include hand tooling, power tooling, exhaust gas analyser, vacuum gauge, pressure gauge tachometer and multimeter
Materials	Materials may include oils and lubricants, minor spare parts and cleaning materials
Communications	Communications are to include, but are not limited to verbal and visual instructions and fault reporting and may include site specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers
Information/documents	Sources of information/documents may include: • verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets, diagrams or sketches • safe work procedures related to servicing petrol fuel systems • regulatory/legislative requirements pertaining to the automotive industry, including Australian Design Rules • engineer's design specifications and instructions • organisation work specifications and requirements • instructions issued by authorised enterprise or external persons • Australian Standards

Unit Sector(s)

Unit sector	Mechanical Miscellaneous
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Co-requisite units

Not applicable.

Competency field

Competency field	Technical - Fuel Systems
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