



Australian Government

AURETR135 Apply knowledge of petrol and diesel engine operation

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with AUR Automotive Retail, Service and Repair Training Package Version 6.0

Application

This unit describes the skills and knowledge required to apply knowledge of petrol and diesel engine components and systems, as well as of the principles of engine operation, during the testing and repair of basic electrical circuits in vehicles, vessels and machinery.

The unit applies to those who work in the automotive service and repair industry. The engines include those in agricultural machinery, heavy commercial vehicles, light vehicles, vessels, mobile plant machinery, motorcycles or outdoor power equipment.

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

Unit Sector

Electrical Technical – Electrical and Electronics

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify relevant information relating to petrol and diesel engine operation in work activities	1.1 Identify functions of engine components during testing and repair activities 1.2 Identify functions of ignition, charging, starting and engine management systems during testing and repair activities
2. Apply knowledge of petrol and diesel engine operation in work activities	2.1 Identify effect of electrical system on engine performance during testing and repair activities 2.2 Apply knowledge of the relationship that a four-stroke cycle petrol engine has with vehicle ignition, starting, air and fuel delivery and cooling systems

ELEMENT	PERFORMANCE CRITERIA
	2.3 Apply knowledge of the relationship that a diesel engine has with vehicle ignition, starting, air and fuel delivery and cooling systems
3. Evaluate knowledge of petrol and diesel engine operation	3.1 Regularly check knowledge with colleagues and supervisor 3.2 Update knowledge as required according to role requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Learning	<ul style="list-style-type: none"> Locates required sources of information efficiently
Reading	<ul style="list-style-type: none"> Interprets a range of technical information relating to petrol and diesel engines and their operation
Numeracy	<ul style="list-style-type: none"> Interprets numbers and units relating to petrol and diesel engines in automotive technical information Uses basic mathematical operations to calculate engine dimensions, such as bore, stroke power, and torque Interprets numbers and units used with measuring equipment, such as compression gauges and cylinder leakage testers.

Unit Mapping Information

Supersedes and is equivalent to AURETR035 Apply knowledge of petrol and diesel engine operation.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>