



Australian Government

**Assessment Requirements for AURJTE102
Diagnose complex faults in motorcycle
engine and transmission systems**

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

Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- diagnose at least one complex fault in each of the following:
 - engine system of a motorcycle
 - manual transmission of a second motorcycle
 - automatic transmission or continuously variable transmission (CVT) of a third motorcycle
- develop a testing strategy in the course of the above to diagnose the cause of at least two of the following types of complex faults:
 - an intermittent fault
 - a fault that affects more than one system
 - a fault introduced as a result of a system repair
 - an indirect fault caused by the influence of external systems.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- methods to locate and interpret information required to diagnose complex faults in motorcycle or ATV engine and transmission system, including:
 - motorcycle or ATV engine and transmission system manufacturer specifications
- workplace procedures required to diagnose complex faults in motorcycle or ATV engine and transmission systems, including:
 - establishing the serviceability of tools and equipment
 - documentation procedures
 - housekeeping procedures, including:
 - examination of tools and equipment

- storage of equipment
- identification, tagging and isolation of faulty equipment
- safe disposal of materials
- recycling procedures
- workplace health and safety (WHS) requirements relating to diagnosing complex faults in motorcycle engine and transmission systems, including procedures for:
 - lifting and supporting motorcycles
- environmental requirements relating to motorcycle engine and transmission systems, including procedures for:
 - trapping, storing and disposing of fluids released from engine and transmission systems
- types of complex faults relating to motorcycle engine and transmission systems, including:
 - intermittent
 - multi-system
 - introduced as a result of system repair
 - indirect, caused by the influence of external systems
- types, function and operation of motorcycle engine and transmission systems, including:
 - two and four-stroke air and liquid-cooled engines
 - manual transmissions
 - automatic transmissions
 - CVT
- testing procedures for motorcycle engine and transmission systems, including procedures for:
 - vehicle dynamic and static testing
 - abnormal noise analysis
 - component failure analysis
- operation and limitations of diagnostic testing equipment required to diagnose complex faults in motorcycle engine and transmission systems, including:
 - procedures for accessing and interpreting scan tool system data, including:
 - diagnostic trouble codes (DTCs), including conditions that set and run the DTCs
 - live data
 - freeze frame data
 - waveforms
 - motorcycle continuous and non-continuous monitored systems.

Assessment Conditions

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

Assessment must include direct observation of tasks.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the motorcycle engine and transmission systems 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 repair workplace or simulated workplace
- workplace instructions
- manufacturer motorcycle engine and transmission system specifications
- three different motorcycles with complex faults in their engine and transmission systems
- motorcycle engine and transmission system diagnostic equipment
- tools, equipment and materials appropriate for diagnosing complex faults in motorcycle engine and transmission systems.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume Implementation Guide is found on VETNet -

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