Australian Government

Assessment Requirements for AURJTR001 Analyse and evaluate faults in motorcycle electrical and electronic systems

Release: 1

Assessment Requirements for AURJTR001 Analyse and evaluate faults in motorcycle electrical and electronic systems

Modification History

Release	Comment
Release 1	New unit of competency.

Performance Evidence

Before competency can be determined, individuals must demonstrate they can perform the following according to the standards defined in this unit's elements, performance criteria, range of conditions and foundation skills:

- analyse and evaluate a fault in:
  - one single wire (non CAN-bus) networked circuit of a motorcycle
  - one two-wire high and low speed (CAN-bus) networked system of a different motorcycle
  - one non CAN-bus or one CAN-bus networked system of a third motorcycle.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to analysing and evaluating faults in motorcycle electrical and electronic systems, including procedures for:
  - working with motorcycle ignition system high voltage
  - identifying hazards and controlling risks associated with wearing jewellery while working around high current wiring systems
- principles and processes involved in planning and implementing analysis and evaluation of motorcycle electrical and electronic system faults
- design and planning of diagnostic procedures of motorcycle electrical and electronic system faults, including procedures for diagnosing:
  - lighting
  - charging
  - starting
  - ignition

  - immobiliser
  - fuel injection
  - engine management
  - anti-lock braking (ABS)
- procedures for analysing and evaluating motorcycle electrical and electronic system faults, including:
  - system failure analysis
  - component failure analysis
- types, functions, operation and limitations of motorcycle electrical and electronic systems, including:
  - lighting
  - charging
  - starting
  - ignition
  - immobiliser
  - fuel injection
  - engine management
  - ABS systems
- testing procedures for motorcycle electrical and electronic systems, including the use of:
  - multimeters
  - diagnostic scan tools
- types, functions, operation and limitations of diagnostic testing equipment required to analyse and evaluate faults in motorcycle electrical and electronic systems
- procedures for documenting and reporting the system analysis and evaluation process
- requirements of Australian Design Rules (ADRs) relating to motorcycle electrical and electronic systems.

Assessment Conditions

Assessors must satisfy NVR/AQTF assessor requirements.

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 electrical and electronic 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 electrical and electronic system specifications
- three different motorcycles with faults in the electrical and electronic systems specified in the performance evidence
- diagnostic equipment for motorcycle electrical and electronic systems
- tools, equipment and materials appropriate for analysing and evaluating motorcycle electrical and electronic systems.

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1

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