Australian Government

Assessment Requirements for AURETR125 Test, charge and replace batteries and jump-start vehicles

Release: 1

Assessment Requirements for AURETR125 Test, charge and replace batteries and jump-start vehicles

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:

- test two different types of automotive batteries
- charge two batteries, in which the work must involve:
  - slow or trickle charging one battery
  - rapid charging the second battery
- remove and replace batteries from two different vehicles or machinery
- jump-start two different vehicles or machinery.

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 test, charge and replace batteries and jump-start vehicles, including:
  - battery and vehicle manufacturer specifications
  - safety data sheets (SDS)
- workplace procedures required to test, charge and replace batteries and jump-start vehicles, including:
  - testing batteries
  - charging batteries
  - replacing batteries
  - jump-starting vehicles
  - establishing serviceability of tools and equipment
  - documentation procedures
  - housekeeping procedures, including:
    - examination of tools and equipment

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    - storage of equipment
    - identification, tagging and isolation of faulty equipment
    - disposal of excess materials
    - recycling procedures
- workplace health and safety (WHS) policies and procedures relating to testing, charging and replacing batteries and jump-start vehicles, including procedures for:
    - safely operating:
        - battery testing equipment
        - battery charging equipment
    - selecting and using personal protective equipment (PPE), including safety glasses
    - identifying hazards and controlling risks associated with:
        - battery, vehicle and machinery movement before carrying out work
        - wearing jewellery while working around high current wiring systems
    - identifying hybrid vehicles
    - identifying battery electric vehicles
- environmental requirements relating to testing, charging and replacing batteries and jump-starting vehicles, including procedures for:
    - following safety data sheets (SDS) to trap, store and dispose of toxic and corrosive substances
    - disposing of or recycling batteries
- tools and equipment required for testing, charging and replacing batteries and jump-starting vehicles, including:
    - load testing devices
    - hydrometers
    - multimeters
    - jumper leads
    - battery chargers
    - battery cleaning materials
- difference between voltage and current
- key features and uses of batteries, including:
    - lead acid batteries, including deep cycle batteries
    - gel batteries
    - absorbed glass mat batteries
    - calcium batteries
    - lithium ion and lithium ion phosphate batteries
- battery connection methods for 6 volt, 12 volt, 24 volt and 48 volt, including:
    - series
    - parallel
    - series parallel
- battery classification methods, including:

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  - cold cranking amps (CCA)
  - reserve capacity (RC)
  - amp hour rating
- battery testing procedures, including:
  - testing safety requirements
  - visual inspection procedures
  - voltage drop testing
  - hydrometer testing
  - high rate discharge testing
- battery charging procedures, including:
  - charging safety requirements
  - slow, fast and trickle charging
  - battery memory retention
- battery replacement procedures, including:
  - determining battery specifications to suit vehicle or machinery manufacturer specifications, including correct:
    - voltage
    - CCA and RC ratings
  - replacement safety requirements
  - terminal disconnection
  - battery selection
  - battery installation and terminal connection
  - securing battery in vehicle
  - system recalibration procedures
- battery jump-start procedures, including:
  - vehicle and personnel safety requirements
  - battery terminal disconnection
  - jumper lead connection and disconnection.

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 batteries that they have tested, charged, replaced and jump-started, 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:

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- automotive repair workplace or simulated workplace
- workplace instructions
- manufacturer battery specifications
- PPE for testing, charging, removing and replacing batteries and jump-starting vehicles and machinery, including safety glasses
- two different types of serviceable batteries
- two different vehicles or machinery requiring jump-starting
- tools, equipment and materials appropriate for battery testing, charging and replacement, including:
  - load testing device
  - hydrometer
  - multimeter
  - jumper leads
  - battery charger
  - battery cleaning materials.

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

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