Australian Government

Assessment Requirements for AURLTD007 Analyse and evaluate faults in light vehicle steering and suspension systems

Release: 1

Assessment Requirements for AURLTD007 Analyse and evaluate faults in light vehicle steering and suspension 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 the:
  - steering system of a light vehicle
  - suspension system of a different light vehicle
  - steering system or suspension system of a third light vehicle.

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 light vehicle steering and suspension systems, including procedures for working with:
  - stored energy in springs, air springs and torsion bars
  - high pressure and high temperature steering system fluids
- environmental requirements, including procedures for trapping, storing and disposing of fluids released from steering and suspension systems
- principles and processes involved in planning and implementing analysis and evaluation of light vehicle steering and suspension system faults
- design and planning of diagnostic procedures of light vehicle steering and suspension system faults, including procedures for diagnosing:
  - hydraulic faults
  - mechanical faults
  - electrical faults

- procedures for analysing and evaluating light vehicle steering and suspension system faults, including:
  - system failure analysis
  - component failure analysis
- types, functions, operation and limitations of the following systems, including:
  - steering system and components:
    - manual steering
    - steering system theory, including steering angles
    - hydraulic power assisted steering
    - electric power assisted steering
    - electrohydraulic assisted steering
  - front suspension system and components, including short and long arm and MacPherson strut
  - rear suspension and components, including rigid axle and independent suspension
- testing procedures for light vehicle steering and suspension systems, including:
  - power steering
  - manual steering
  - electrical controllers
  - hydraulic pressures
  - mechanical components
- types, functions, operation and limitations of diagnostic testing equipment required to analyse and evaluate faults in light vehicle steering and suspension systems
- procedures for documenting and reporting the system analysis and evaluation process
- requirements of Australian Design Rules (ADRs) relating to light vehicle steering and suspension 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 light vehicle steering and suspension 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 light vehicle steering and suspension system specifications

- three different light vehicles with steering and suspension system faults
- diagnostic equipment for light vehicle steering and suspension systems
- tools, equipment and materials appropriate for analysing and evaluating light vehicle steering and suspension systems.

Links

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

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