



Australian Government

Assessment Requirements for AURLTD009

Diagnose complex faults in light vehicle steering and suspension systems

Release: 1

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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:

- diagnose a complex fault in the:
 - steering system of a light vehicle
 - suspension system of a different light vehicle
 - steering or suspension system of a third light vehicle
- the above diagnosis must involve 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

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to diagnosing complex 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
- types of complex faults relating to light vehicle steering and suspension 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 light vehicle steering and suspension systems, including:
 - hydraulic power assisted steering
 - electric power assisted steering
 - active suspension
 - adaptive suspension
- testing procedures for light vehicle steering and suspension systems, including procedures for:
 - vehicle dynamic and static testing
 - abnormal noise analysis
 - component failure analysis
- types, functions, operation and limitations of diagnostic testing equipment required to diagnose complex faults in light vehicle steering and suspension systems
- procedures for accessing and interpreting scan tool system data, including:
 - diagnostic trouble codes (DTCs), including:
 - conditions that set the DTCs
 - conditions for running DTCs
 - live data
 - freeze frame data
 - waveforms
 - vehicle continuous and non-continuous monitored systems
- methods and processes for documenting and reporting diagnostic findings and recommendations.

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 specifications
- three different light vehicles with complex faults in their steering and suspension systems
- steering and suspension system diagnostic equipment
- tools, equipment and materials appropriate for diagnosing complex faults in steering and suspension systems.

Links

Companion Volume implementation guides are found in VETNet -

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

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