



Australian Government

Assessment Requirements for AURKTD005

Diagnose complex faults in mobile plant steering and suspension systems

Release: 1

Assessment Requirements for AURKTD005 Diagnose complex faults in mobile plant 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:

- diagnose a complex fault in the:
 - steering system of a mobile plant machinery
 - suspension system of a different mobile plant machinery
 - steering or suspension system of a third mobile plant machinery
- 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 mobile plant steering and suspension systems, including procedures for:
 - identifying hazards and controlling risks associated with hazardous materials and substances, including hydraulic fluid and nitrogen gas
 - managing stored energy in springs and accumulators
 - working with high pressure and high temperature fluid hazards
 - tagging out and isolating machines, and wheel chocking
- environmental requirements, including procedures for trapping, storing and disposing of oils and fluids released from steering and suspension systems

- types of complex faults relating to mobile plant 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 mobile plant steering and suspension systems, including:
 - steering systems, including:
 - articulated steering
 - front wheel steering
 - all wheel steering
 - differential steer
 - steering clutch and brake system
 - suspension systems, including:
 - spring
 - solid rubber
 - gas charged hydraulic
 - hydraulic
- testing procedures for mobile plant steering and suspension systems, including procedures for:
 - operational tests
 - abnormal noise analysis
 - flow, temperature and pressure tests
 - component wear analysis
 - sources of fluid leaks
- types, functions, operation and limitations of diagnostic testing equipment required to diagnose complex faults in mobile plant steering and suspension systems, including flow, temperature and pressure gauges
- 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
 - 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 mobile plant 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 mobile plant steering and suspension system specifications
- steering and suspension systems of three different mobile plant machinery with complex faults
- mobile plant steering and suspension system diagnostic equipment, including:
 - flow, temperature and pressure gauges
 - scan tool
- tools, equipment and materials appropriate for diagnosing complex faults in mobile plant 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>

Companion Volume implementation guides are found in VETNet -

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