



Australian Government

Assessment Requirements for AURKTX003

Diagnose complex faults in mobile plant transmission and driveline 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:
 - transmission of a mobile plant machine
 - driveline of a different mobile plant machine
 - transmission or driveline of a third mobile plant machine
- 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 transmission and driveline systems, including procedures for:
 - tagging out and isolating machines, and wheel chocking
 - working with rotating shaft hazards
- environmental requirements, including procedures for trapping, storing and disposing of oils and fluids released from transmission and driveline systems
- types of complex faults relating to mobile plant transmission and driveline 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 transmission and driveline systems, including:
 - transmissions
 - drivelines
 - final drives
- testing procedures for mobile plant transmission and driveline systems, including:
 - transmission and driveline performance test
 - abnormal noise analysis
 - component wear analysis
 - transmission oil pressure test
 - sources of fluid leaks
- types, functions, operation and limitations of diagnostic testing equipment required to diagnose complex faults in mobile plant transmission and driveline 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
 - 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 transmission and driveline 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 transmission and driveline system specifications
- transmission and driveline systems of three different types of mobile plant machinery with complex faults
- mobile plant transmission and driveline system diagnostic equipment, including:
 - oil pressure gauge
 - scan tool
- tools, equipment and materials appropriate for diagnosing complex faults in mobile plant transmission and driveline 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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