



Australian Government

Assessment Requirements for AURKTX103

Diagnose complex faults in mobile plant transmission and driveline systems

Release: 1

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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:

- diagnose a complex fault in each of the following:
 - transmission system of a piece of mobile plant machinery
 - driveline system of a different piece of mobile plant machinery
 - transmission or driveline system of a third piece of mobile plant machinery
- develop a testing strategy in the course of the above work to diagnose the cause of at least two of the following 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

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 diagnose complex faults in mobile plant transmission and driveline systems, including:
 - mobile plant transmission and driveline system manufacturer specifications
- workplace procedures required to diagnose complex faults in mobile plant transmission and driveline systems, including:
 - establishing the serviceability of tools and equipment
 - documentation procedures
 - housekeeping procedures, including:
 - examination of tools and equipment
 - storage of equipment

- identification, tagging and isolation of faulty equipment
- safe disposal of materials
- recycling procedures
- workplace health and safety (WHS) 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, and functions of mobile plant transmission and driveline systems, including:
 - transmissions
 - drivelines
 - final drives
- testing procedures for mobile plant transmission and driveline systems, including procedures for:
 - 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
 - waveforms
 - vehicle continuous and non-continuous monitored systems.

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 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.

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>