



Australian Government

**Assessment Requirements for AURKTD003
Analyse and evaluate faults in wheeled
mobile plant steering and suspension
systems**

Release: 1

Assessment Requirements for AURKTD003 Analyse and evaluate faults in wheeled 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:

- analyse and evaluate a fault in the:
 - steering system of a wheeled mobile plant machine
 - suspension system of a different wheeled mobile plant machine
 - steering or suspension system of a third wheeled mobile plant machine.

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 wheeled mobile plant steering and suspension systems, including procedures for:
 - isolating and locking articulated steering systems
 - tagging out and isolating machines
- environmental requirements, including procedures for trapping, storing and disposing of oils and fluids released from steering and suspension systems
- principles and processes involved in planning and implementing analysis and evaluation of faults in wheeled mobile plant steering and suspension systems
- design and planning of diagnostic procedures of wheeled mobile plant steering and suspension system faults, including procedures for diagnosing:
 - hydraulic faults
 - mechanical faults
 - electrical faults

- procedures for analysing and evaluating wheeled mobile plant 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, including:
 - steering system theory
 - power assisted steering
 - hydrostatic steering
 - electrohydraulic steering
 - steer-by-wire steering
 - influences of trailer operations on mobile plant steering performance
 - suspension system and components, including:
 - wheels and tyres
 - equalising beam suspension
 - rigid frame suspension
 - oscillating axle suspension
 - hydrostatic suspension
 - gas charged hydraulic suspension
 - cushion hitch suspension
 - influences of trailer operations on mobile plant suspension performance
- testing procedures of wheeled mobile plant steering and suspension systems, including:
 - system pressure, flow rates and temperature
 - accumulator pressure
 - component wear analysis
 - suspension levellers
 - sensor, actuator and wiring harness integrity
- types, functions, operation and limitations of diagnostic testing equipment required to analyse and evaluate faults in wheeled mobile plant steering and suspension systems
- procedures for documenting and reporting the analysis and evaluation process.

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 wheeled 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 wheeled mobile plant steering and suspension system specifications
- three different wheeled mobile plant machinery with steering and suspension system faults
- diagnostic equipment for wheeled mobile plant steering and suspension systems
- tools, equipment and materials appropriate for analysing and evaluating wheeled mobile plant 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>

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