



Australian Government

Assessment Requirements for AURPTA011 Diagnose and repair pumping systems

Release: 1

Assessment Requirements for AURPTA011 Diagnose and repair pumping 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 and repair a fault in the following three pumping systems:
 - one centrifugal pumping system
 - one high pressure piston pumping system
 - one diaphragm pumping system.

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 and repairing pumping systems, including procedures for:
 - starting and operating pumping systems
 - working with exhaust fume hazards
 - working with 240 volt equipment
- operating principles of positive and non-positive displacement pumping systems and associated components
- application, purpose and operation of the following pumping systems and components, including:
 - centrifugal pumps used for firefighting, irrigation and water transfer
 - high pressure piston pumps used in pressure cleaners
 - diaphragm pumps used in orchard spraying
- types of lubricants, and associated application and methods of lubrication
- diagnostic testing procedures for pumping systems, including:
 - testing system for pressure, suction and discharge

- isolating faults, including internal and external leakage
- repair procedures for pumping systems, including:
 - dismantling, inspecting and evaluating, replacing and adjusting the following pumping system components:
 - filters and strainers
 - hose and pipe fittings and attachments
 - overload devices
 - protective guards and cowlings
 - handle assembly
 - lubrication systems
 - drive systems
 - mounting brackets and frame
 - assembling pumping system and completing operational tests
- post-repair testing procedures for pumping systems.

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 pumping 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 specifications for pumping systems
- area for safely testing pumping systems
- pressure gauge
- three pumping systems specified in the performance evidence with faults
- tools, equipment and materials appropriate for diagnosing and repairing pumping 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>