



Australian Government

Assessment Requirements for AURPTA111 Diagnose and repair pumping 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 and repair at least one fault in each of the following pumping systems:
 - centrifugal pumping system
 - high pressure piston pumping system
 - diaphragm pumping system.

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 and repair pumping systems, including:
 - information provided by customer and supervisors
 - manufacturer specifications and procedures or equivalent documentation
- workplace procedures required to diagnose and repair pumping systems, including:
 - establishing 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
 - disposal of excess materials
 - recycling procedures
- work health and safety (WHS) 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 and re-testing procedures for pumping 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 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:

- outdoor power equipment 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.

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>