



Australian Government

AURRTR001 Inspect, service and maintain marine battery storage systems

Release: 1

AURRTR001 Inspect, service and maintain marine battery storage systems

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes to inspect, service and maintain marine battery storage systems. It involves preparing for the task, inspecting the battery storage system, servicing the system, and completing workplace processes and documentation, including any associated recommendations for further action.

It applies to those working in the marine service and repair industry. The battery storage systems include those in recreational boating equipment or marine applications.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Competency Field

Marine

Unit Sector

Technical - Electrical and Electronic

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold and italicised text is used, further information is detailed in the range of conditions section.
1. Prepare to inspect and service marine battery storage system	1.1 Job requirements are determined from workplace instructions 1.2 Inspection and servicing procedures and information are accessed and interpreted 1.3 Hazards associated with the work are identified and risks are

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold and italicised text is used, further information is detailed in the range of conditions section.
	managed 1.4 Tools, equipment and materials are selected and checked for serviceability
2. Inspect system	2.1 Inspection is carried out according to manufacturer specifications, workplace procedures and safety requirements 2.2 Inspection results are compared with manufacturer specifications 2.3 Inspection findings are reported according to workplace procedures, including recommendations for required repairs or adjustments
3. Service and maintain system	3.1 Service and maintenance procedures are carried out according to manufacturer specifications, and safety and environmental requirements , and without causing damage to components or systems 3.2 Post-service testing is carried out according to workplace procedures, and safety and environmental requirements
4. Complete work processes	4.1 Final inspection is made to ensure work is to workplace expectations and battery storage system is presented ready for use 4.2 Work area is cleaned, waste and non-recyclable materials are disposed of, and recyclable material is collected 4.3 Tools and equipment are checked and stored according to workplace procedures 4.4 Workplace documentation is processed according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance and are not explicit in the performance criteria.

Skills	Description
Learning skills to:	locate appropriate sources of information efficiently.
Reading skills to:	interpret information from manufacturer and workshop literature when seeking service procedures and specifications relating to battery storage systems.
Writing skills to:	legibly and accurately fill out workplace documentation when reporting inspection findings, making recommendations, and

Skills	Description
	recording parts and material used.
Oral communication skills to:	- clarify instructions - report inspection findings.
Numeracy skills to:	match battery types and identification numbers to specifications.

Range of Conditions

This section specifies work environments and conditions that may affect performance.

Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Bold italicised wording, if used in the performance criteria, is detailed below.

<i>Safety requirements</i> must include:	- work health and safety (WHS) and occupational health and safety (OHS) requirements, including procedures for: - selecting and using personal protective equipment (PPE), including clothing, and eye and hand protection - working with high current electrical systems - manually handling batteries and toxic and corrosive substances - checking and dealing with flammable gas build-up in boats prior to starting electrical system work.
<i>Service and maintenance procedures</i> must include:	- inspecting battery, terminals and leads - inspecting battery securing system - inspecting and cleaning battery and battery storage compartment - topping battery fluid as required.
<i>Environmental requirements</i> must include:	procedures for trapping, storing and disposing of cleaning fluids used during service and maintenance process.

Unit Mapping Information

Equivalent to AURRTR1001 Inspect, service and maintain marine battery storage systems

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>

Assessment Requirements for AURRTR001 Inspect, service and maintain marine battery storage systems

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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:

- inspect, service and maintain the marine battery storage systems of two different vessels.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to inspecting, servicing and maintaining marine battery storage systems, including procedures for:
 - selecting and using personal protective equipment (PPE), including clothing, and eye and hand protection
 - working with high current electrical systems
 - manually handling batteries and toxic and corrosive substances
 - checking and dealing with flammable gas build-up in boats prior to starting electrical system work
 - environmental requirements, including procedures for trapping, storing and disposing of cleaning fluids used during service and maintenance process
- identification and function of marine battery storage system components, including:
 - base, cover and box
 - battery hold-down systems
 - ventilation and cooling systems
 - battery switching devices
- inspection procedures for marine battery storage systems, including inspecting:
 - battery, terminals and leads

- battery securing systems
- battery storage compartments
- service and maintenance procedures for marine battery storage systems, including:
 - cleaning batteries, battery terminals and posts, and battery storage compartments
 - topping up battery fluid.

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 marine battery storage systems that they have inspected, serviced and maintained, 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:

- workplace location or simulated workplace
- workplace instructions
- manufacturer battery storage system specifications
- two different vessels with marine battery storage systems requiring service and maintenance
- PPE, including clothing, and eye and hand protection
- tools, equipment and materials appropriate for inspecting, servicing and maintaining marine battery storage systems.

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