

Title	Inspect, test and repair an inboard engine cooling system on a trailer boat		
Level	4	Credits	5

Purpose	People credited with this unit standard are able to inspect and test an engine cooling system, and repair inboard engine cooling system faults on a trailer boat.
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Classification	Motor Industry > Trailer Boat Systems
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Available grade	Achieved
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Guidance information

- 1 Recommended for entry: Unit 15439, *Demonstrate knowledge of the operation and servicing of open and closed cooling systems on trailer boats.*
- 2 All work practices must meet recognised codes of practice and documented worksite health and safety procedures (where these exceed code) for personal, product, and worksite health and safety, and must meet the obligations required under the Health and Safety at Work Act 2015, Health and Safety in Employment Regulations 1995, and Resource Management Act 1991, and any subsequent amendments.
- 3 Definitions
Run up refers to testing of trailer boat engine in an artificial environment such as test tank.
Service information refers to technical information of a boat or product detailing: operation; installation and servicing procedures; manufacturer instructions and specifications; technical terms and descriptions; and illustrations.
Workplace policies and procedures refer to the documented procedures and policies providing guidelines of the tasks and activities carried out in the workplace. This typically includes relevant health and safety requirements to eliminate hazard/risk in the workplace.

Outcomes and performance criteria

Outcome 1

Inspect and test inboard an engine cooling system.

Performance criteria

- 1.1 The cooling system is inspected for damage or deterioration to cooling system components in accordance with service information and workplace policies and procedures.

1.2 Cooling system is inspected and run up to check operational performance in accordance with service information and workplace policies and procedures.

Range cooling system includes – hoses, pipes, heat exchanger, expansion tank, pressure cap, pump drive belt, thermostat.

1.3 Raw water system is checked for function faults in accordance with service information and workplace policies and procedures.

Range raw water system may include the following components – water intake screen, pickup pump operation, oil cooler and heat exchanger circulation, water manifold operation, coolant discharge, sea cock, pump drive belt; evidence of three raw water components is required.

1.4 Inspection report is prepared for the cooling system in accordance with workplace policies and procedures.

Outcome 2

Repair inboard engine cooling system faults on a trailer boat.

Range evidence of two different types of repair jobs is required.

Performance criteria

2.1 Inboard engine cooling system faults are repaired in accordance with service information and workplace policies and procedures.

2.2 Completed repairs are checked and run up, and remedial action is taken, if required, to ensure service information is met.

Planned review date	31 December 2022
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	23 February 1999	31 December 2018
Revision	2	16 April 2003	31 December 2018
Review	3	21 September 2007	31 December 2018
Review	4	28 September 2017	N/A

Consent and Moderation Requirements (CMR) reference	0136
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact the NZ Marine and Composites Industry Training Organisation training@nzmarine.com if you wish to suggest changes to the content of this unit standard.