

Title	Demonstrate knowledge of trailer boat hydraulic principles, systems and components		
Level	4	Credits	5

Purpose	People credited with this unit standard are able to explain trailer boat hydraulic principles and demonstrate knowledge of trailer boat systems and components.
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Classification	Motor Industry > Trailer Boat Systems
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Available grade	Achieved
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Guidance information

Definitions

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

Explain trailer boat hydraulic principles.

Performance criteria

1.1 The basic principles of hydraulics are explained in relation to trailer boat components.

Range principles – pressure, flow, force.

1.2 Proportional hydraulics is explained in terms of hydraulic circuits.

- 1.3 Safety precautions are explained in relation to working with hydraulic equipment in accordance with workplace policies and procedures.

Range safety precautions include – relieving system pressure before disconnecting oil lines, leaving the system unattended, working and blocking a raised system, removing components, checking line connections, observing safety signs, correct use of personal protective equipment, making repairs on the boat, avoiding hot fluids and parts.

Outcome 2

Demonstrate knowledge of trailer boat hydraulic systems and components.

Performance criteria

- 2.1 Hydraulic components are explained in terms of their marine application.

Range components may include – directional control valves, pressure regulating valves, flow control valves, load control valves, counterbalance valves, hydraulic pumps, hydraulic cylinders, hydraulic motors;
evidence of five components is required.

- 2.2 Hydraulic circuits are explained in terms of marine application.

Range hydraulic circuits – series, parallel, synchronized, regenerative, closed, accumulator, motion control.

- 2.3 Installation procedures for hydraulic lines, hoses, and pressure fittings are described in accordance with service information.

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	21 September 2007	31 December 2018
Review	2	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.