

Title	Demonstrate knowledge of marine lubricants and lubrication systems; and marine adhesives, sealants, and gaskets		
Level	2	Credits	2

Purpose	<p>This theory-based unit standard is intended for people in the marine repair industry.</p> <p>People credited with this unit standard are able to demonstrate knowledge of marine lubricants and lubrication systems; and marine adhesives, sealants, and gaskets.</p>
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Classification	Motor Industry > Automotive Preventive Maintenance
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Available grade	Achieved
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Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable service information, and company requirements and legislative requirements. This includes the knowledge and use of suitable tools and equipment.
- 2 Performance of the outcomes of this unit standard must comply with the following: Hazardous Substances and New Organisms Act 1996; Health and Safety at Work Act 2015.
- 3 Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.
- 4 Definitions

Company requirements refer to instructions to staff on policy and procedures that are available in the workplace. These requirements may include – company policies and procedures, work instructions, product quality specifications and legislative requirements.

Service information refers to technical information for a vehicle, machine, or product detailing operation; installation and servicing procedures; manufacturer instructions; technical terms and descriptions; and detailed illustrations.

Suitable tools and equipment refer to industry approved tools and equipment that are recognised within the industry as being the most suited to complete the task in a professional and competent manner with due regard to safe working practices.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of marine lubricants and lubrication systems.

Performance criteria

- 1.1 The main functions of lubricants are described.
- Range lubricating, cooling, preventing corrosion, cleaning, sealing.
- 1.2 The internationally accepted methods of grading and classifying oils and greases are described.
- Range oils by viscosity, API (American Petroleum Institute) classifications, gear oil classifications, greases by base element, additives by application.
- 1.3 The main functions of lubrication systems are described.
- Range includes but is not limited to – reducing friction and wear, transferring heat, cooling, cleaning, reducing power loss, absorbing shocks between moving parts, quieting operation, increasing component life.
- 1.4 Precautions when using lubricants in a marine environment are described.
- Range effects of corrosion, galvanic action, expansion rates and potential seizures, ingress of water, spillage.

Outcome 2

Demonstrate knowledge of marine adhesives, sealants, and gaskets.

Performance criteria

- 2.1 The main functions and properties of adhesives and sealants are described.
- Range properties relating to – the substance that is to be contained, the materials that the sealant must adhere to, the necessity of flexibility.
- 2.2 The types of adhesives and sealant used in marine applications are described.
- Range includes but is not limited to – silicon, butyl, polyurethane, epoxy; air drying, drying by chemical reaction.
- 2.3 Types of gasket used in marine applications are described.
- Range includes but is not limited to – cork, fibre, nylon, synthetic rubber, corrugated sheet.

2.4 Precautions when using adhesives and sealants in a marine environment are described.

Range includes but is not limited to – effects of corrosion, galvanic action, expansion rates and potential seizures, ingress of water, storage hazards, compliance with SDS (safety data sheets) and legislative requirements.

Replacement information	This unit standard and unit standard 24377 replaced unit standard 15409.
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Planned review date	31 December 2025
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	20 March 2008	31 December 2022
Review	2	29 April 2021	N/A

Consent and Moderation Requirements (CMR) reference	0014
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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 MITO New Zealand Incorporated info@mito.org.nz if you wish to suggest changes to the content of this unit standard.