Title	Explain and install pipework in boats		
Level	4	Credits	15

Purpose	People credited with this unit standard are able to explain pipework in boats, prepare materials and tools, and install pipework in boats.	
	This unit standard is for people who work, or intend to work, as marine engineers or boatbuilders.	

Classification	Boating Industries > Boatbuilding
----------------	-----------------------------------

Available grade	Achieved
-----------------	----------

Guidance information

- 1 Definitions
 - Job specifications refers to the standard requirements of the job being undertaken. Workplace policies and procedures refers 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.
- All work practices must meet recognised codes of practice and workplace policies and procedures (where these exceed code) for personal, product, and workplace 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 Pipework does not include pipework for flammable gases.
- 4 Range installation systems grey, black, potable, bilge.

Outcomes and performance criteria

Outcome 1

Explain pipework in boats.

Performance criteria

- 1.1 Pipework is explained in terms in system types.
- 1.2 Pipework, hose types, and connection systems are explained in terms of applications.

NZQA unit standard 9938 version 6
Page 2 of 3

- 1.3 Fittings are explained in terms of their applications and installation methods.
- 1.4 System testing processes are explained in accordance with job specifications.

Outcome 2

Prepare materials and tools to install pipework in boats.

Performance criteria

- 2.1 Materials and tools are prepared in accordance with job specifications.
 - Range materials pipe, adhesives, fastenings.
- 2.2 Fittings and accessories are prepared in accordance with job specifications.
 - Range may include sleeves, bends, reducers, expansion valves, line tap valves, service valves, driers, filters, sight glasses.
- 2.3 Types of joints are matched with materials in accordance with job specifications.

Outcome 3

Install pipework in boats.

Performance criteria

- 3.1 Pipework is cut, bent, fabricated, joined, and sealed in accordance with job specifications.
- 3.2 Pipework is installed in accordance with job specifications.
- 3.3 Completed installations are tested for leaks, and remedial action is taken if required to ensure job specifications are met.

Planned review date	31 December 2023
---------------------	------------------

NZQA unit standard 9938 version 6 Page 3 of 3

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	7 May 1997	31 December 2020
Revision	2	9 October 1998	31 December 2020
Revision	3	20 March 2001	31 December 2020
Revision	4	16 April 2004	31 December 2020
Rollover and Revision	5	20 March 2009	31 December 2020
Review	6	31 May 2018	N/A

Consent and Moderation Requirements (CMR) reference	0136
---	------

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 ITO training@nzmarine.com if you wish to suggest changes to the content of this unit standard.