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| <b>Title</b> | <b>Test, diagnose and rectify marine electronic fuel injection (EFI) system</b> |                |          |
| <b>Level</b> | <b>4</b>  | <b>Credits</b> | <b>6</b> |

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| <b>Purpose</b> | People credited with this unit standard are able to test, diagnose, and rectify electronic fuel injection (EFI) system faults on a marine engine. |
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| <b>Classification</b> | Boating Industries > Boatbuilding |
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| <b>Available grade</b> | Achieved |
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### Guidance Information

- 1 All work practices must 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 and Resource Management Act 1991, and any subsequent amendments.
- 2 **Definition**  
*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 policies to manage risk in the workplace.
- 3 **Range**  
marine engine – inboard or outboard; petrol or diesel.

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### Outcomes and performance criteria

#### Outcome 1

Test and diagnose a marine electronic fuel injection system.

#### Performance criteria

- 1.1 The self-diagnostic system report is interpreted to identify any system faults.
- 1.2 Any system faults identified in the diagnostic report are located and tested.
- 1.3 Any parts of the electronic fuel injection system not covered by the self-diagnostic system are tested and faults are located.

- 1.4 Blockages and leaks on air intake system are checked to determine the operating condition.
- Range intake manifold, inter cooler, plenum, turbo, air filter, air flow sensor.
- 1.5 Fuel supply system is tested for operating pressure, pressure retention, and fuel flow rate.
- 1.6 Engine speed is monitored and measured at normal operating temperature.
- 1.7 Reports are made in accordance with workplace policies and procedures.

## Outcome 2

Rectify EFI system faults on a marine engine.

### Performance criteria

- 2.1 EFI system faults on a marine engine are rectified in accordance with manufacturer's specification.
- 2.2 Completed rectifications are checked and tested, and remedial action is taken if required to ensure manufacturer's specification is met.
- Range electrical, fuel flow, air intake system.

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| <b>Planned review date</b> | 31 December 2023 |
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### Status information and last date for assessment for superseded versions

| Process      | Version | Date         | Last Date for Assessment |
|--------------|---------|--------------|--------------------------|
| Registration | 1       | 26 July 2018 | N/A                      |

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| <b>Consent and Moderation Requirements (CMR) reference</b> | 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](mailto:training@nzmarine.com) if you wish to suggest changes to the content of this unit standard.