

Title	Prepare to and rectify faults in forklift direct or alternating current electric motors and speed control systems		
Level	4	Credits	5

Purpose	People credited with this unit standard are able to: prepare to rectify faults in forklift direct or alternating current (dc or ac) electric motors and speed control systems; and rectify faults in forklift dc or ac electric motors and speed control systems.
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Classification	Motor Industry > Automotive Electrical and Electronics
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Available grade	Achieved
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Guidance Information

- 1 It is recommended that people hold credit for Unit 24117, *Demonstrate knowledge of direct and alternating current electric motors used in forklifts and their repair procedures* before being assessed against this unit standard.
- 2 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.
- 3 Performance of the outcomes of this unit standard must comply with the following: Health and Safety at Work Act 2015.
- 4 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.
- 5 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 means 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.

- 6 Range
This unit standard may include but is not limited to the following dc and ac electric motor types – series wound, shunt wound, compound wound.
- 7 For this unit standard, it is essential that the practical assessment evidence is obtained in the workplace under normal workplace conditions.

Outcomes and performance criteria

Outcome 1

Prepare to rectify faults in forklift dc or ac electric motors and speed control systems.

Performance criteria

- 1.1 Symptoms of the fault, to assist with diagnosis, are obtained from the customer or job card.
- 1.2 The motor is removed from the forklift.

Outcome 2

Rectify faults in forklift dc or ac electric motors and speed control systems.

Range minimum of one electric motor type.

Performance criteria

- 2.1 The motor is dismantled, and all necessary brush gear and end case positioning marks are established.
- 2.2 The parts are cleaned and inspected for wear and damage, and the results noted.
- 2.3 Repairable components are returned to full serviceability.
- 2.4 Non-repairable faulty components are replaced.
- 2.5 The motor is reassembled and refitted to the forklift.
- 2.6 Speed control faults are diagnosed using suitable test equipment, and the forklift operation restored.

Replacement information	This unit standard and unit standard 24117 replaced unit standard 2339.
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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	25 January 2008	31 December 2022
Review	2	25 March 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.