Title	**Demonstrate knowledge of safety in electromechanical maintenance and repair**		
Level	**4**	**Credits**	**8**

Purpose	This unit standard covers electricity knowledge for people intending to qualify in the electrical industry in electromechanical maintenance and repair. It provides the underpinning knowledge for those people who have responsibility for the refurbishment of electric machines. This includes dismantling, stripping, rewinding, assembling and testing electric machines. People credited with this unit standard are able to demonstrate knowledge of: – health and safety in the electromechanical maintenance and repair industry; – safe industrial mechanical handling of electrical equipment; and – safety requirements for working with scaffolds and ladders.

Classification	Electrical Engineering > Electrical Machines

Available grade	Achieved

Guidance Information

1 This unit standard has been developed for learning and assessment off-job and can be completed by passing the Electrical Apparatus Service Association (EASA) distance learning module *Safety - Introduction to Safety and Health, Government Safety and Health Regulations, Scaffolds and Ladders, Personal Protective Equipment, Chemical Safety, Material Handling, Fire Safety, Tool Safety, Working Safely with Machinery, Working Safely with Electricity, Electrical Equipment Safety, Protecting your Health, Introduction to Industrial Rigging, Wire Rope and Wire-Rope Slings, Chain and Metal-Mesh Slings, Fibre Rope and Webbing Slings, Industrial Hoists and Cranes, Operating Practices*.

2 Definition
PPE – personal protection equipment.

3 References
Electricity Act 1992;
Electricity (Safety) Regulations 2010;
Health and Safety at Work Act 2015;
Approved Code of Practice for Load-lifting Rigging, available online from https://worksafe.govt.nz;
and all subsequent amendments.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of health and safety in the electromechanical maintenance and repair industry.

Performance criteria

1.1 Explain the responsibilities of employers and employees in the workplace under the Health and Safety at Work Act 2015.

Range may include but is not limited to – training, hazard identification, risk management practices, safety committees, unsafe acts, unsafe conditions, work site conditions, use of personal protection equipment, near accident reporting, accident reporting process, emergency procedures, accident investigations, safety on the job, penalties for non-compliance.

1.2 Explain the responsibilities of employers and employees in relation to the use of PPE in the workplace.

1.3 Describe the PPE required to manage hazards in the workplace.

Range hazards may include but is not limited to – electrical, chemical, mechanical, noise, atmosphere, fire, arc flash.

1.4 Describe the process of identifying and managing hazards in the workplace.

Range hazards may include but is not limited to – electrical, chemical, mechanical, noise, atmosphere, fire, arc flash;
evidence of five different workplace hazards required.

Outcome 2

Demonstrate knowledge of safe industrial mechanical handling of electrical equipment.

Performance criteria

2.1 Describe the tools used in safe industrial rigging.

Range may include but is not limited to – hoists, slings, ropes, chains, special lifting devices, chain hoists, forklifts.

2.2 Explain and calculate requirements to lift industrial load safely.

Range may include but is not limited to – weight of allowable load, centre of gravity, breaking strength of rope, chain, synthetic web, rope type, sling attachment method, hoist hooks, lifting hooks.

2.3 Describe the safety-related requirement of inspection before use of industrial rigging.

Range may include but is not limited to – hooks used for intended purpose, load within lift rating, shock loading, location of personnel within work area, condition of lifting equipment, sling method.

2.4 Explain safety procedures and precautions in lifting operations.

Range evidence of three different procedures and precautions required.

Outcome 3

Demonstrate knowledge of safety requirements for working with scaffolds and ladders.

Performance criteria

3.1 Describe the types of construction and safety measures that apply on the use of scaffolds.

Range may include but is not limited to – pole, independent, workmen's, suspension, lifeline, hydraulic scissors, planking, access points, anchor and guy support.

3.2 Explain the reasons for certification and checking prior to use of scaffolds.

3.3 Explain the inspection requirements of a ladder prior to use.

Planned review date	31 December 2025

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 April 2019	N/A
Review	2	30 January 2025	N/A

Consent and Moderation Requirements (CMR) reference	0003

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

Comments on this unit standard

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council qualifications@waihangaararau.nz if you wish to suggest changes to the content of this unit standard.