40826 Lead rigging and lifting operations for the maintenance of passenger ropeways

Kaupae | Level	4
Whiwhinga | Credit	15
Whāinga | Purpose	This skill standard is designed for individuals already working in the passenger ropeway sector who require the skills and knowledge to lead the safe rigging and lifting of loads required for passenger ropeway maintenance. This skill standard may be used in programmes leading to qualifications and micro-credentials at Level 3 and above in passenger ropeway maintenance.

Hua o te ako me Paearu aromatawai \| Learning outcomes and assessment criteria

Hua o te ako | Learning outcomes	**Paearu aromatawai** | Assessment criteria
1. Explain the principles of slinging and lifting required for passenger ropeway maintenance.	a. Explain dynamic and static loads.
	b. Explain proper load types, load distribution and balance, and load securing techniques.
	c. Explain load factors and Safe Working Load (SWL).
	d. Select and describe appropriate lifting and safety equipment in relation to load characteristics, and lift hazards.
2. Explain safe storage and compliance obligations of lifting equipment.	a. Explain compliance obligations for the safe storage and inspection of lifting equipment.
	b. Describe the certification process for lifting equipment, including documentation and compliance verification.

Hua o te ako | Learning outcomes	**Paearu aromatawai** | Assessment criteria
3. Plan and lead lifting operations for passenger ropeway maintenance.	a. Develop lifting plans for maintenance operations, which include hazard and risk assessment, control measures and an emergency plan.
	b. Assess environmental conditions when lifting a load, such as wind, visibility, vectors, and other conditions in passenger ropeways.
	c. Conduct pre-use and post-use inspection checks of lifting equipment, ensuring compliance with safety standards and take necessary action for any defects or issues identified.
	d. Inspect anchorage and attachment points prior to lift initiation.
	e. Rig load securely to maintain safe and effective load control.
	f. Apply handling protocols to manage stored energy in loads and minimise risk during lift.
	g. Direct the load with safe and effective load control, in accordance with lift plan and defined industry communication signals and agreed team communications.
4. Communicate effectively with personnel involved in lifting operations for passenger ropeway maintenance.	a. Communicate clear and concise instructions to the lifting team, ensuring understanding and compliance with safety protocols.
	b. Coordinate effectively with relevant personnel to ensure synchronised movements and safe handling of loads.
	c. Communicate emergency situations promptly and effectively to the lifting team, enabling swift and coordinated responses to mitigate risks.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment will include practical demonstrations, written assessments, completed lifting plans and simulated or real workplace observations in a passenger ropeway context.

Learners must submit evidence of their leading a minimum of three lifting operations and applying the principles and procedures outlined in the learning outcomes. Typical passenger ropeway lifting operations refer to operations such as lifting sheave assemblies, removal of drive equipment or station equipment.

Definitions

Lifting plan is a detailed document or set of documents outlining the procedures and protocols to be followed when performing lifting operations.

Lifting team refers to all those contributing to the lifting operations, such as helicopter pilots, excavator operators, and telehandlers.

Load factors refer to the forces and conditions affecting the load being lifted or moved. These factors can include the weight of the load itself, the angle of the rigging, dynamic forces such as wind or sudden movements, and any additional stresses placed on the rigging system.

Safe Working Load (SWL) is the maximum load a piece of lifting equipment or rigging component can safely handle under normal working conditions. It's determined by considering various factors such as material strength, design specifications, and safety margins.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content

Lifting Plan

- description of the lifting task
- equipment and resources
- site conditions and constraints
- risk management
- communication and coordination
- emergency procedures.

Environmental Factors

- wind
- visibility
- vectors, and other conditions in passenger ropeways.

Rauemi | Resources

Legislation, regulations and/or industry standards

- Health & Safety at Work Act 2015.
- Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999 https://www.legislation.govt.nz/regulation/public/1999/0128/latest/DLM284452.html.
- Approved Code of Practice for Passenger Ropeways in New Zealand https://www.worksafe.govt.nz/topic-and-industry/machinery/safe-passenger-ropeways/.
- Approved Code of Practice for Cranes https://www.worksafe.govt.nz/topic-and-industry/cranes/.
- Approved Code of Practice for Load-lifting rigging https://www.worksafe.govt.nz/topic-and-industry/load-lifting-and-rigging/.

- Best practice guidelines for working at height in NZ – Worksafe https://www.worksafe.govt.nz/topic-and-industry/working-at-height/working-at-height-in-nz/.
- Best practice guidelines for mobile elevating work platforms NZ – Worksafe https://www.worksafe.govt.nz/topic-and-industry/working-at-height/mobile-elevating-work-platforms-2/.
- Best Practice guidelines for scaffolding – Worksafe https://www.worksafe.govt.nz/topic-and-industry/working-at-height/scaffolding-in-new-zealand/.
- Best Practice Guidelines-industrial-rope-access – Worksafe https://www.worksafe.govt.nz/topic-and-industry/working-at-height/working-safely-at-height/.
- Manufacturers Specifications.
- Workplace Operation Procedures.
- NZS 8635:2018 Passenger ropeways and passenger conveyors.

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa | Standard Setting Body	Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai | DASS classification	Engineering and Technology > Mechanical Engineering > Maintenance and Diagnostics in Mechanical Engineering
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga | CMR	0013

Hātepe | Process	**Putanga** | Version	**Rā whakaputa** | Review Date	**Rā whakamutunga mō te aromatawai** | Last date for assessment
Rēhitatanga | Registration	1	24 July 2025	NA
Kōrero whakakapinga | Replacement information	N/A		
Rā arotake | Planned review date	31 December 2030		

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council at qualifications@hangaarorau.nz if you wish to suggest changes to the content of this skill standard.