

40595 Operate a material handler and attachments for metal recycling

Kaupae Level	3
Whiwhinga Credit	15
Whāinga Purpose	<p>This skill standard is intended for people who are already working in a resource recovery environment which processes metals for recycling and/or re-use. People credited with this skill standard will be able to operate a material handler and attachments such as a grapple or lifting magnet for metal recycling.</p> <p>This skill standard aligns with the New Zealand Certificate in Resource Recovery (Level 3) with strands in Organic Materials Processing, Recovery and Recycling, and Metal Recycling [Ref: 2744].</p>
Whakaakoranga me mātua oti Pre-requisites	Learners/ākonga must have completed a workplace health and safety induction or demonstrate equivalent knowledge and skills.

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

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Prepare to operate a material handler for metal recycling.	a. Describe the functions and components of a material handler and attachments used for metal recycling.
	b. Identify hazards and their controls for material handler and attachments used in the workplace.
	c. Assess risks and apply risk controls for material handler operations.
	d. Demonstrate machine startup and shutdown procedures safely.
	e. Demonstrate machine emergency response procedures.
	f. Fit, secure and remove appropriate attachments for handling metal.

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
2. Conduct a prestart check of material handler and attachments for metal recycling.	a. Conduct a prestart check of material handler and ensure that controls and warning signs are functioning.
	b. Conduct a prestart check of attachment operations.
	c. Check work area for hazards.
	d. Rectify or report any issues affecting quality or safety requirements.
3. Operate material handler and attachments for metal recycling.	a. Operate machinery and equipment controls to move attachment smoothly through all positions.
	b. Maintain adequate operating clearances for material handler and attachment.
	c. Sort and place metals using material handler and attachment.
	d. Load and unload metal safely.
	e. Maintain material throughput to meet processing schedules.
	f. Maintain communication with work crew during operations.
	g. Park material handler in preparation for shut down and switch off engine.
4. Maintain material handler and attachments used for metal recycling.	a. Undertake routine maintenance of machinery and attachment.
	b. Report any specialist maintenance requirements to supervisor.

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

Assessment specifications:

Evidence presented for assessment against this skill standard must be consistent with safe working practices and be in accordance with applicable service information, workplace procedures and legislative requirements.

Definitions

Grapple refers to equipment that picks up and carries metal in large quantities in continuous heavy-duty cycling. It is usually attached to a crane, excavator or material handler. It is also referred to as a grab.

Lifting magnet refers to equipment that lifts ferrous metals by electromagnetic force.

Workplace procedures refer to organisation policies and procedures that are documented in memo, electronic, or manual format and available in the workplace. They may include but are not limited to – standard operating procedures, site specific procedures, site safety procedures, equipment operating procedures, quality assurance procedures, product quality specifications, manufacturer's requirements, references, approved codes of practice, housekeeping standards, environmental considerations, on-site briefings, supervisor's instructions, and procedures to comply with legislative and local body requirements relevant to the resource recovery industry.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content

Safety requirements

- Safe entry and exit into operator's cab.
- Maintaining exclusion zones.
- Understanding of when and how to use fire extinguishers.
- Machine emergency shutdown procedures.
- Emergency operator response to events such as rollover, fire, mechanical failure, stockpile collapse.

Prestart check

- Machinery components including wheels, undercarriage, operator's cab, protective structures, main boom, stick/dipper arm, attachment such as grapple or lifting magnet, hoses.
- Visual inspection of machinery and equipment to ensure they are in good working condition, including fluid checks (hydraulic fluid, engine oil and coolant), fan belt and air filter indicator.
- Confirmation of job requirements.

Operations

- Secure loading and placement of materials.
- Use of appropriate attachment for handling different types of metals.
- Loading and unloading metal into machinery, containers and/or vehicles.
- Adherence to equipment load capacity.
- Balancing loads to maintain stability.
- Monitoring equipment controls and operations.
- Clear communication with ground crew.
- Adequate clearances – people, property, services, access, adjacent stockpiles, overhead obstructions.

Maintenance

- Routine operation such as lubrication, adjustments, hose replacement, fluid levels, clear air vents, cleaning.

Grapple

- Components including rotator, jaws, tines, cylinder, pins, hinge points, hose and fitting, pressure.
- Types of grapples such as orange peel, tulip, log, narrow tine.
- Prestart check – grease points, pins, locking nuts, hydraulic lines.

Lifting magnet

- Components including magnetic controller, generator, coil, hydraulic system, pumps.
- Use of magnets in metal recycling industry.
- Prestart check including cables and plug.
- Operation within rated operating parameters.
- Sorting – separation of non-ferrous and ferrous metals, grading, sizing.
- Placing – stockpiling, loading, feeding a conveyor or hopper.

Rauemi | Resources

Legislation, regulations and industry guidelines relevant to this skill standard include but are not limited to:

- Hazardous Substances and New Organisms Act 1996.
- Health and Safety at Work Act 2015.
- Land Transport Act 1998.
- Resource Management Act 1991.
- Secondhand Dealers and Pawnbrokers Act 2004.
- Environmental Protection Authority Victoria. (2021). Management and storage of combustible recyclable and waste materials – guideline. Available from: <https://www.epa.vic.gov.au/>.
- Worksafe New Zealand. (current edition). Best Practice Guidelines, Safe Use of Machinery. Available from: <https://www.worksafe.govt.nz/>.

Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this skill standard will take precedence for assessment purposes, pending review of this skill standard. Legislation can be accessed at: <https://www.legislation.govt.nz>.

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	Service Sector > Resource Recovery > Scrap Metal Recycling
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0014

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	27 March 2025	N/A
Kōrero whakakapinga Replacement information	This skill standard replaced unit standard 22662 and unit standard 22663.		
Rā arotake Planned review date	31 December 2029		

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