

40471 Prepare to diagnose faults in water blasters and low-pressure transfer pumps used in motor and related industries

Kaupae Level	4
Whiwhinga Credit	4
Whāinga Purpose	<p>This skill standard is intended for people already working in the outdoor power equipment industry. People credited with this skill standard can describe water blasters and low-pressure transfer pumps and explain how to diagnose faults in these in the motor and related industries</p> <p>This standard can be used in programmes incorporating the use of outdoor power equipment.</p>

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

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Describe water blasters in the motor and related industries.	a. Describe hot and cold water blasters.
	b. Describe the different parts of water blasters.
	c. Explain how water blasters operate.
2. Describe low-pressure transfer pumps in the motor and related industries.	a. Describe the fundamentals of pumping water.
	b. Describe different types of low-pressure transfer pumps.
	c. Explain how low-pressure transfer pumps are operated.
3. Explain how to diagnose faults in water blasters and low-pressure transfer pumps in the motor and related industries.	a. Explain ways to diagnose faults in water blasters and low-pressure transfer pumps.

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

Assessment specifications

The evidence presented for assessment against this skill standard must be consistent with safe working procedures and be in accordance with applicable service information.

Water blaster parts must include:

- filters
- pumps
- hoses
- heaters
- wands
- the nozzle
- unloader valve
- pump drive
- motor (electric, petrol and diesel).

Water blasting operation must include:

- output pressure
- flow rate.

Pumping fundamentals must include:

- priming
- head height
- pick up
- volume rates.

Definitions

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.

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 automotive industry.

Ihirangi waitohu | Indicative content

Low pressure pumps, such as:

- slurry pumps
- water pumps
- piston
- centrifugal
- diaphragm
- rotary
- flex-drive
- positive and non-positive displacement pump.

Ngā momo whiwhinga | Grades available

Achieved

Rauemi | Resources

Legislation and resources relevant to this skill standard include:

- [Health and Safety at Work Act 2015](#).

Pārongo Whakaū Kouna | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Hanga-Aro-Rau Engineering, Manufacturing and Logistics Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Engineering and Technology > Motor Industry > Automotive Workshop Engineering
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 31896.		
Rā arotake Planned review date	31 December 2029		

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