

Title	Demonstrate knowledge of the gasfitting of LPG systems for gas installations in mobile applications		
Level	4	Credits	5

Purpose	<p>This unit standard is for people who work in the gasfitting industry.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> – identify the components of LPG cylinder supply systems for gas installations in mobile applications; – demonstrate knowledge of the installation of LPG systems for gas installations in mobile applications; – demonstrate knowledge of the commissioning of LPG systems for gas installations in mobile applications; and – demonstrate knowledge of regulatory requirements applicable to the gasfitting of LPG systems for gas installations in mobile applications.
----------------	--

Classification	Plumbing, Gasfitting and Drainlaying > Gasfitting
-----------------------	---

Available grade	Achieved
------------------------	----------

Guidance Information

- 1 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the:
- Gas Act 1992;
 - Gas (Safety and Measurement) Regulations 2010;
 - Health and Safety at Work Act 2015.

The following standards, which are available at <http://www.standards.govt.nz>:
 AS/NZS 1596:2014, *The storage and handling of LP Gas*,
 NZS 5601.1:2013 *Gas installations - Part 1: General installations*,
 NZS 5601.2:2013 *Gas installations - Part 2: LP Gas installations in caravans and boats for non-propulsive purposes*.

The following codes of practice, which are available at <http://www.gasnz.org.nz/lpg-association-of-new-zealand/lpga/codes-of-practice>:
 GasNZ Code of Practice No. 2 *Installation and maintenance of twin 45kg LPG cylinder systems*,
 GasNZ Code of Practice No. 5 *Installation and maintenance of LPG multi-cylinder systems*.

Any new, amended or replacement referenced standards, codes of practice, guidelines, Building Code Acceptable Solutions and Verification Methods, or authority requirements affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.

2 Definitions

LPG systems refer to cylinders and associated fittings including pigtails, regulators, manifolds, condensate trap/drain, and where necessary system pipework.

Mobile applications refer to installations of LPG for non-propulsive purposes in boats, caravans, food trucks, floating restaurants, motorhomes, motor caravans, mobile catering facilities.

3 Candidates must hold a current limited certificate trainee authorisation or exemption under supervision as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006.

4 Assessment information

Where there is content in codes and standards that applies to both mobile and fixed LPG systems, assessment against this standard is to focus on the unique attributes of mobile installations.

5 Range

LPG systems may include any combination of – single cylinder, multiple cylinder, single stage and two stage regulators.

Outcomes and performance criteria

Outcome 1

Identify the components of LPG cylinder supply systems for gas installations in mobile applications.

Performance criteria

1.1 Identify systems that serve different applications.

1.2 Identify the components of LPG systems and their functions.

Range may include but is not limited to – LPG cylinders, changeover regulators, excess flow valves, flexible hoses, single and two stage regulation, condensate trap, cylinder connections relief valves, relief pipes, vibration and support.

Outcome 2

Demonstrate knowledge of the installation of LPG systems for gas installations in mobile applications.

Performance criteria

- 2.1 Calculate capacities of mobile LPG systems in accordance with maximum appliance load.
- 2.2 Establish appropriate location of mobile LPG systems in accordance with relevant standards and codes.
- 2.3 Explain installation of mobile LPG systems in accordance with relevant standards and codes.
- 2.4 Explain the requirements for securing and physical protection of installed mobile LPG systems.
- 2.5 Explain the safety requirements for gas detection, ventilation, vapour barriers and lockouts.
- 2.6 Explain considerations relating to the process of leakage testing and purging of mobile LPG installations.
- 2.7 Describe the installation of pipework in mobile LPG installations.
- Range permitted materials and jointing methods, suitable locations, vibration, penetrations.
- 2.8 Describe installation of appliances in mobile LPG applications.
- Range vibration, securing, combustion clearances, ventilation.
- 2.9 Explain requirements for fluing and ventilation in mobile applications.

Outcome 3

Demonstrate knowledge of the commissioning of LPG systems for gas installations in mobile applications.

Performance criteria

- 3.1 Explain commissioning of systems in accordance with relevant standards and codes.
- Range must include but is not limited to – checking and adjusting operating pressures.
- 3.2 Describe documentation to be completed in accordance with relevant standards and codes.
- Range may include but is not limited to – gas certificates, guarantees, checklists, site certification.
- 3.3 Explain the consumer instruction process to be followed on completion of installation and commissioning.

Outcome 4

Demonstrate knowledge of regulatory requirements applicable to the gasfitting of LPG systems for gas installations in mobile applications.

Performance criteria

- 4.1 Describe legislation, standards, and codes in terms of their application to the gasfitting of LPG systems for gas installations in mobile applications.

Replacement information	This unit standard, unit standard 30720, unit standard 30721, and unit standard 30723 replaced unit standard 21897.
--------------------------------	---

Planned review date	31 December 2029
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	23 November 2017	31 December 2028
Review	2	25 July 2024	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.