

Title	Demonstrate knowledge of materials handling machine types, their applications, operation, and safety precautions		
Level	2	Credits	4

Purpose	People credited with this unit standard are able to demonstrate knowledge of materials handling machine: types and applications; operation; and safety precautions.
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Classification	Motor Industry > Tractor and Machine Systems
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Available grade	Achieved
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Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable service information, and company requirements and legislative requirements. This includes the knowledge and use of suitable tools and equipment.
- 2 Performance of the outcomes of this unit standard must comply with the following: Health and Safety at Work Act 2015.
- 3 Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.
- 4 Definitions
Company requirements refer to instructions to staff on policy and procedures that are available in the workplace. These requirements may include – company policies and procedures, work instructions, product quality specifications and legislative requirements.
Service information refers to information such as technical information for a vehicle, machine, or product detailing operation; installation and servicing procedures; manufacturer instructions; technical terms and descriptions; and detailed illustrations.
Suitable tools and equipment refer to industry approved tools and equipment that are recognised within the industry as being the most suited to complete the task in a professional and competent manner with due regard to safe working practices.
- 5 Range
This unit standard may include the following materials handling machines – petrol, diesel, or LPG (liquefied petroleum gas) powered forklift, tow tractor, side loader, container hoist, straddle truck; electric trucks – forklift, walk-behind pallet, ride-on pallet, reach truck, order picker, counterbalance truck, turret truck.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of materials handling machine types and applications.

Performance criteria

1.1 The operating principles of materials handling machines are explained.

Range propulsion, transfer of power to carriage attachments, steering and manoeuvrability, leverage and gearing, lifting and supporting materials, transporting materials.

1.2 Types of materials handling machine are defined for a particular application based on design features and abilities.

Range type of work required; the type of application; workplace environment – size restrictions, noise restrictions, hazardous environment, combustible environment.

Outcome 2

Demonstrate knowledge of materials handling machine operation.

Performance criteria

2.1 The layout and functions of components are described.

Range operator controls, engine and transmission, steering, frame, mast and carriage attachments.

Outcome 3

Demonstrate knowledge of materials handling machine safety precautions.

Performance criteria

3.1 Safety precautions when jacking and lifting the machine are identified.

Range ensuring load capacity of hoist and jacking equipment is sufficient for the lift, jacking carried out on hard even surface, wheels chocked, park brake or emergency brake applied, jacking point on a load bearing structure that will support the weight of the machine, supporting blocks or stands of sufficient load capacity and securely placed.

3.2 Safety precautions when working on hydraulic components are identified.

Range relieving system pressure before disconnecting oil lines and components, leaving the machine, working and blocking a raised system, lowering machine attachments to the ground, avoiding hot fluids and parts.

3.3 Safety precautions when working around the machine are identified.

Range moving and exposed parts, hot surfaces, systems under load, integrated systems, electronic components, safety systems, battery servicing, sharp and projecting parts, automatic functions, welding on the machine, lifting components, testing electrical circuits.

3.4 Safety precautions when operating the machine are identified.

Range pre-operational check; starting; raising and lowering the carriage and forks; stability of the machine and load; driving, stopping, and parking; operator certification requirements.

Planned review date	31 December 2025
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	23 February 1999	31 December 2022
Revision	2	13 March 2001	31 December 2022
Revision	3	16 April 2003	31 December 2022
Review	4	21 September 2007	31 December 2022
Review	5	29 July 2021	N/A

Consent and Moderation Requirements (CMR) reference	0014
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact MITO New Zealand Incorporated info@mito.org.nz if you wish to suggest changes to the content of this unit standard.