

Demonstrate knowledge of materials handling machine types, their applications, operation, and safety precautions

Level 2

Credits 4

Purpose This theory-based unit standard is for people in the materials handling equipment repair industry. People credited with this unit standard are able to demonstrate knowledge of materials handling machine: types and applications; operation; and safety precautions.

Subfield Motor Industry

Domain Tractor and Machine Systems

Status Registered

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Entry information Open.

Accreditation Evaluation of documentation by NZQA and industry.

Standard setting body (SSB) NZ Motor Industry Training Organisation (Incorporated)

Accreditation and Moderation Action Plan (AMAP) reference 0014

This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Special notes

- 1 Legislation relevant to this unit standard includes but is not limited to – Health and Safety in Employment Act 1992.
- 2 Definition
Service information may include but is not limited to – technical information of a vehicle, machine, or product detailing operation; installation and servicing procedures; manufacturer instructions and specifications; technical terms and descriptions; and detailed illustrations. This can be accessed in hard copy or electronic format and is normally sourced from the manufacturer.

- 3 Range
This unit standard may include but is not limited to the following materials handling machines –
petrol, diesel, or liquefied petroleum gas (LPG) powered forklift, tow tractor, side loader, container hoist, straddle truck;
electric trucks – forklift, walk-behind pallet, ride-on pallet truck, reach truck, order picker, counterbalance truck, turret truck.

Elements and performance criteria

Element 1

Demonstrate knowledge of materials handling machine types and applications.

Performance criteria

- 1.1 The operating principles of materials handling machines are explained in accordance with service information.
- 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 – includes but is not limited to – size restrictions, noise restrictions, hazardous environment, combustible environment.

Element 2

Demonstrate knowledge of materials handling machine operation.

Performance criteria

- 2.1 The layout and functions of components are described in accordance with service information.
- Range operator controls, engine and transmission, steering, frame, mast and carriage attachments.

Element 3

Demonstrate knowledge of materials handling machine safety precautions.

Performance criteria

- 3.1 Safety precautions when jacking and lifting the machine are identified in accordance with legislative requirements.
- 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 in accordance with legislative requirements.
- 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 in accordance with legislative requirements.
- 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 in accordance with legislative requirements.
- Range pre-operational check; starting; raising and lowering the carriage and forks; stability of the machine and/or load; driving, stopping, and parking; operator certification requirements.

Please note

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the NZ Motor Industry Training Organisation (Incorporated) janet.lane@mito.org.nz if you wish to suggest changes to the content of this unit standard.