

Title	Diagnose and rectify faults in tractor or machine steering systems		
Level	4	Credits	3

Purpose	This unit standard is for people in the agricultural and heavy equipment industry. People credited with this unit standard are able to diagnose and rectify faults in tractor or machine steering systems.
----------------	--

Classification	Motor Industry > Vehicle Steering and Suspension
-----------------------	--

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

Guidance Information

- 1 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to – the current version of the Health and Safety at Work Act 2015; Traffic Regulations 1976; Land Transport Rules: Heavy Vehicles 2004, Rule 31002; Vehicle Repair 1998, Rule 34001; *Vehicle Inspection Requirements Manual (VIRM) – In-service Certification*, NZ Transport Agency, 2010; and any subsequent amendments and replacements.
- 2 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable service information, company requirements and legislative requirements. This includes the knowledge and use of suitable tools and equipment.
- 3 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 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.
Suitable tools and equipment means 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.
- 4 For this unit standard, it is essential that the practical assessment evidence is obtained in the workplace under normal workplace conditions.
- 5 It is recommended that people seeking credit for this unit standard first hold credit for Unit 24438, *Demonstrate knowledge of tractor or machine wheel steering systems and fault diagnosis and repair procedures*.

- 6 Machines may include – forklifts, earth moving equipment, grader equipment, loaders, dozers, tractors, agricultural equipment, dump trucks, prime movers; electric machines including – forklift, walk-behind pallet, ride-on pallet, reach truck, order picker, counterbalance truck, turret truck.

Outcomes and performance criteria

Outcome 1

Diagnose faults in tractor or machine steering systems.

Range evidence of three separate faults is required.

Performance criteria

- 1.1 Faults in steering systems are identified and diagnosed.

Range may include – hydraulic pressure tests; steering components, hydraulic flow test; actuator tests, visual inspection for damage, leakage and wear; field testing for operation.

Outcome 2

Rectify faults in tractor or machine steering systems.

Performance criteria

- 2.1 Steering system faults that require dismantling and repair are rectified.

Range may include – steering components, hydraulic rams, hydraulic pump, control valves, steering system assembled and refitted, hydraulic tests, field testing for operation; evidence of rectifying three separate faults is required.

- 2.2 Tractor or machine steering geometry is checked.

Replacement information	This unit standard and unit standard 24438 replaced unit standard 5443.
Planned review date	31 December 2022

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 January 2008	31 December 2020
Review	2	29 March 2018	N/A

Consent and Moderation Requirements (CMR) reference

0014

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.