

Demonstrate knowledge of diagnosing and rectifying vehicle power-assisted steering system faults

Level 4

Credits 2

Purpose This theory-based unit standard is for people in the automotive repair industry. People credited with this unit standard are able to demonstrate knowledge of: a power-assisted steering system; pressure and flow testing a power-assisted steering system; and rectifying faults in a power-assisted steering system.

Subfield Motor Industry

Domain Vehicle Steering and Suspension

Status Registered

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Entry information Open.

Replacement information This unit standard, unit standard 24427, and unit standard 24428 replaced unit standard 901.

Accreditation Evaluation of documentation and visit 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 and publications relevant to this unit standard include but are not limited to – Health and Safety in Employment Act 1992; Resource Management Act 1991, s15 Discharge of contaminants into environment; Land Transport Rules: Steering Systems 2001, Rule 32003/1; Vehicle Repair 1998, Rule 34001.

- 2 Land Transport Rules are produced for the Minister of Transport by Land Transport New Zealand. These rules are available online at <http://www.landtransport.govt.nz/rules/>.
- 3 **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.
- 4 This unit standard can lead on to Unit 3398, *Disassemble, inspect, and overhaul power steering boxes and power steering rack assemblies*, and Unit 24427, *Test, diagnose, and rectify vehicle hydraulic power-assisted steering system faults*.

Elements and performance criteria

Element 1

Demonstrate knowledge of a power-assisted steering system.

Performance criteria

- 1.1 Components that make up the power-assisted steering system are identified in accordance with service information.

Range includes but is not limited to – oil, reservoir, pump, steering rack, steering box, hoses.
- 1.2 Components that make up the steering pump are identified in accordance with service information.

Element 2

Demonstrate knowledge of pressure and flow testing a power-assisted steering system.

Performance criteria

- 2.1 Procedures for preparing the vehicle for testing the power-assisted steering system are described in accordance with service information.
- 2.2 Procedures for testing the steering pump pressure and flow are described in accordance with service information.
- 2.3 Procedures for analysing test results and comparing them with manufacturer specifications are described in accordance with service information.

Element 3

Demonstrate knowledge of rectifying faults in a power-assisted steering system.

Performance criteria

3.1 Procedures for identifying faulty power-assisted steering components and replacing them are described in accordance with service information and legislative requirements.

Range includes but is not limited to – oil, reservoir, pump overhaul, steering rack and/or steering box, parts inspection.

3.2 Priming and bleeding the power-assisted steering system is described in accordance with service information.

Range includes but is not limited to – topping up with the specified hydraulic oil, testing.

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) info@mito.org.nz if you wish to suggest changes to the content of this unit standard.