

## Diagnose and rectify faults in hydraulic transmission drives on plant or machinery

**Level** 4

**Credits** 5

**Purpose** This unit standard is for people in the automotive repair industry. People credited with this unit standard are able to diagnose faults in hydraulic transmission drives on plant or machinery, and rectify faults in hydraulic transmission drives on plant or machinery.

**Subfield** Motor Industry

**Domain** Automotive Transmission Systems

**Status** Registered

**Status date** 25 February 2008

**Date version published** 25 February 2008

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**Entry information** Recommended: Unit 24319, *Demonstrate knowledge of hydrostatic transmission drives, and testing and diagnosing faults, on plant or machinery*, or demonstrate equivalent knowledge and skills.

**Replacement information** This unit standard and unit standard 24319 replaced unit standard 2342.

**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>.

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### Special notes

- 1 Legislation relevant to this unit standard includes but is not limited to – Health and Safety in Employment Act 1992.

## 2 Definitions

*Company requirements* refer to instructions to staff on policy and procedures which are documented in memo or manual format and are available in the workplace. These requirements include but are not limited to – company specifications and procedures, work instructions, manufacturer specifications, 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. This can be accessed in hard copy or electronic format and is normally sourced from the manufacturer.

*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.

- 3 For this unit standard, it is essential that the practical assessment evidence is obtained in the workplace under normal workplace conditions.

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## Elements and performance criteria

### Element 1

Diagnose faults in hydraulic transmission drives on plant or machinery.

### Performance criteria

- 1.1 Safe working practices are observed throughout the task in accordance with legislative requirements.
- Range personal safety, safety of others, plant or machinery safety, workshop safety, environmental safety, tools and equipment safety.
- 1.2 The transmission drive type and model is identified from service information.
- 1.3 Suitable tools and equipment are selected and used that enable hydraulic transmission drives to be tested and faults diagnosed in accordance with service information.
- 1.4 The transmission drive is tested for faults by inspection and by following the procedure prescribed by the manufacturer, and the results are noted.
- Range includes but is not limited to – oil level, oil condition, oil leaks, damage to hydraulic hoses, hydraulic lines and hydraulic components, operation of the pump(s) and motors, machine movement and operation, oil pressures, flow rates.
- 1.5 The test results are analysed in accordance with service information, to determine the probable causes of any faults found, and a recommendation made to rectify the problems.

## Element 2

Rectify faults in hydraulic transmission drives on plant or machinery.

### Performance criteria

- 2.1 Safety precautions are taken before work is started in accordance with service information.  
  
Range engine stopped, hydraulic pressure removed, suspended loads lowered and/or blocked, machine secured against movement.
- 2.2 Hydraulic connections to be opened are cleaned before being opened and the unused openings are plugged in accordance with company requirements.
- 2.3 Suitable tools and equipment are selected and used that enable hydraulic transmission drives to be repaired in accordance with service information.
- 2.4 The faulty unit is dismantled, cleaned and inspected for wear, corrosion, damage, and the presence of foreign material. A decision is made to repair or replace components in accordance with company requirements.
- 2.5 Components unsuitable for repair are replaced in accordance with service information.
- 2.6 Repairable components are repaired in accordance with service information.
- 2.7 The unit is reassembled and refitted to the system in accordance with service information. The system is re-tested for oil leaks and correct operation and the results recorded in accordance with company requirements.

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### 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.

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### **Comments on this unit standard**

Please contact the NZ Motor Industry Training Organisation (Incorporated) [info@mito.org.nz](mailto:info@mito.org.nz) if you wish to suggest changes to the content of this unit standard.