Diagnose and repair faults in heavy machine and equipment suspension systems

Level **4**

Credits **4**

Purpose This unit standard is for people in the automotive heavy repair industry. People credited with this unit standard are able to identify and analyse heavy machine and equipment suspension component failure, and repair heavy machine and equipment suspension components.

Subfield Motor Industry

Domain Vehicle Steering and Suspension

Status Registered

Status date 25 January 2008

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Entry information Recommended: Unit 24434, *Demonstrate knowledge of heavy machine and equipment suspension systems, and diagnosing system failure*, or demonstrate equivalent knowledge and skills.

Replacement information This unit standard and unit standard 24434 replaced unit standard 2330.

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 relevant to this unit standard includes but is not limited to – Health and Safety in Employment Act 1992; Land Transport Rule: 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 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.

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

Elements and performance criteria

Element 1

Identify and analyse heavy machine and equipment suspension component failure.

Performance criteria

1.1 Safe working practices are observed throughout the task in accordance with legislative requirements.

Range personal safety, safety of others, machine or equipment safety, workshop safety, environmental safety, tools and equipment safety.

1.2 Suitable tools and equipment are selected and used that enable component faults to be identified in accordance with service information.

1.3 The suspension is inspected, and the faulty component(s) identified, in accordance with service information.

Range may include but is not limited to – springs, trunnions, beams, bearings, bushes, bolts, pivots, welds, rivets; wear, fracture, cracks, bending, misalignment, security.

1.4 The causes of the suspension failure are analysed, and conclusions reached recorded, in accordance with service information.

1.5 A repair procedure recommendation is made based on an analysis of the suspension failure in accordance with company requirements.

Element 2

Repair heavy machine and equipment suspension components.

Performance criteria

2.1 Safe working practices are observed throughout the task in accordance with legislative requirements.

Range personal safety, safety of others, machine or equipment safety, workshop safety, environmental safety, tools and equipment safety.

2.2 Suitable tools and equipment are selected and used that enable the repair procedures to be carried out in accordance with service information.

2.3 Faulty component(s) are returned to full serviceability, and a recommendation made to rectify any contributory causes, in accordance with service information and legislative requirements.

Range replace with approved replacement parts, repair, adjust.

2.4 The suspension system is lubricated, and checked for height adjustment and operation in accordance with service information.

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.