Prepare to repair, and repair punctures in tubes and tubeless tyres on light vehicles

Level 3
Credits 5

Purpose This unit standard is for people in tyre fitting bays. People credited with this unit standard are able to prepare to repair, and repair, a puncture in a tube and in a tubeless tyre from a light vehicle.

Subfield Motor Industry
Domain Tyres
Status Registered
Status date 25 January 2008
Date version published 25 January 2008
Planned review date 31 December 2012

Entry information Prerequisite: Unit 24457, Demonstrate knowledge of light vehicle tyres and wheels, or demonstrate equivalent knowledge and skills.

Replacement information This unit standard and unit standard 24457 replaced unit standard 916 and unit standard 9074.

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


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/.
New Zealand Standards are available from Standards New Zealand, Private Bag 2439, Wellington; phone 04 498 5990; or website http://www.standards.co.nz.
The VIRM is published by Land Transport New Zealand and is available online at http://www.landtransport.govt.nz/certifiers/virm-in-service/index.html.

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.
Light vehicle refers to classes as listed from Land Transport New Zealand website table http://www.landtransport.govt.nz/publications/infosheets/infosheet-1-10.html#classes: passenger vehicle MA, MB, MC; omnibus MD, MD1, MD2; and goods vehicle NA.
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 Range
This unit standard includes but is not limited to – puncture repairs by patches and plugs to the tyre without the application of heat using chemical and adhesive solutions, patches and plugs vulcanised in place by the application of localised heat with a spot vulcaniser, tubes repaired with a cold vulcanising repair kit.

5 For repairs to heavy vehicle tyres, refer to unit standard 11739, Repair and replace heavy vehicle tyres.
Elements and performance criteria

Element 1

Prepare to repair a puncture in a tube and in a tubeless tyre from a light vehicle.

Performance criteria

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

Range personal safety, safety of others, vehicle safety, site safety, environmental safety, tools and equipment safety, air pressure inflation precautions.

1.2 Suitable tools and equipment are selected and used to enable tyres to be repaired and replaced in accordance with company requirements.

1.3 Tyre is demounted from wheel in accordance with company requirements.

1.4 The tyre and tube are inspected, and its condition and suitability for repair determined, in accordance with company requirements.

Range may include but is not limited to – pressure loss; tyre wear; tyre impact damage; casing failure; cuts; exposed, worn and damaged cords; bulges in side wall; repairs; separations; zipper; beading damage; valve and tube damage; compliance with the VIRM.

1.5 The wheel is inspected, and its condition determined in accordance with company requirements.

Range includes but is not limited to – wheel shape, accident damage, cracks, holes, faulty welds, kerb damage, rusting, compliance with the VIRM.

Element 2

Repair a puncture in a tube and tubeless tyre from a light vehicle.

Performance criteria

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

Range personal safety, safety of others, vehicle safety, site safety, environmental safety, tools and equipment safety, air pressure inflation precautions.

2.2 Suitable tools and equipment are selected and used to enable punctures to be repaired in accordance with company requirements.
2.3 The puncture is repaired in accordance with tyre manufacturer and puncture repair kit instructions, depending on the type of tyre, and size and location of the puncture.

2.4 The size and type of replacement tyres and tubes are selected to conform to that of the wheel, and vehicle manufacturer and company requirements.

2.5 Tyre and tube is assembled on the wheel and inflated and tested as necessary in accordance with manufacturer specifications and legislative requirements.

2.6 Tools and equipment are cleaned and put away after use in accordance with company 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) info@mito.org.nz if you wish to suggest changes to the content of this unit standard.