Demonstrate knowledge of salvage and recovery procedures to recover heavy vehicles and on-road machines

Level 3
Credits 3

Purpose This theory-based unit standard is for people in the automotive heavy and vehicle recovery industries. People credited with this unit standard are able to demonstrate knowledge of: requirements and procedures to recover and tow heavy vehicles and on-road machines; and heavy equipment salvage, recovery, and towing techniques.

Subfield Motor Industry
Domain Vehicle Recovery
Status Registered
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Entry information Open.

Replacement information This unit standard and unit standard 23942 replaced unit standard 2338 and unit standard 15481.

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

Legislation and publications relevant to this unit standard include but are not limited to – Health and Safety in Employment Act 1992; Transport Services Licensing Act 1989; Traffic Regulations 1976; Land Transport Rule: Vehicle Repair 1998, Rule 34001; Australian Standard AS 1418.5-2002 Cranes, hoists and winches – Mobile cranes; Approved code of practice for load-lifting rigging, (Wellington: Occupational Safety and Health, Department of Labour, 2001); The Official New Zealand Road Code, Land Transport New Zealand.
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/. Australian Standards are available online from SAI Global at http://www.saiglobal.com/shop/Script/search.asp. Approved code of practice for load-lifting rigging is available online from the Department of Labour website http://www.osh.govt.nz/order/catalogue/134.shtml. New Zealand Road Code information can be obtained from the following website http://www.landtransport.govt.nz/roadcode.

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.

**Elements and performance criteria**

**Element 1**

Demonstrate knowledge of requirements and procedures to recover and tow heavy vehicles and on-road machines.

Range includes but is not limited to – hook up, flat tow, winch.

**Performance criteria**

1.1 Clauses in the Transport Services Licensing Act and benefits of using Standards and Codes of Practices directly relating to vehicle recovery and towing are explained in accordance with legislative requirements.

Range clauses – driver identification, tow authority form, complaints, passenger behaviour, touting, animals, log book, direct or indirect reward, vehicle recovery service; keeping within the legal requirements, source of practical information.

1.2 Reasons for adhering to vehicle manufacturer towing specifications while undertaking any tow are explained in accordance with legislative requirements.

Range maximum permissible towing weight, towing points, air brake operation.
1.3 Lifting, winching and towing points are described by reference to the service information.

Range heavy vehicles, on-road machines.

1.4 The capability of vehicles to be towed is described in accordance with service information.

Range air brake connections between vehicles and reservoir capacity, steerability, lights and warning indicators, mechanical and body damage, weight ratio comparison, security and certified approval of towing anchor points, beams and eyes.

1.5 The reasons for releasing air brakes and disconnecting drive shafts are described in accordance with service information.

Range prevention of further damage to components, mobility.

1.6 The requirement of a towing vehicle and vehicle and/or machine to be towed being securely connected with a Land Transport New Zealand certified towing attachment is identified.

**Element 2**

Demonstrate knowledge of heavy equipment salvage, recovery, and towing techniques.

**Performance criteria**

2.1 Recovery procedures are described in accordance with legislative requirements and service information.

Range includes but is not limited to – tow, suspended tow and trailer recovery methods, winching.

2.2 The effect of tow hook loading on vehicle stability is identified.

Range changes in axle loading, positioning the centre of the lift, height and angle of lift.

2.3 The towing factors that affect vehicle stability are identified.

Range transverse stability (yawing), directional stability (loss of effective steering).
2.4 Safe towing and hook up techniques that demonstrate good driving and towing practices are described in accordance with Traffic Regulations.

Range smooth progressive power transfer, braking, keeping the tow distance constant to avoid sharp jerking and movement, clear signaling and communication between vehicles, hazard and towing warning requirements; adherence to Traffic Regulations and the Road Code, safe towing procedure, air line attachment.

2.5 The value of communication between the driver of the towing vehicle and driver of the towed vehicle and/or machine is explained in terms of safe towing practices.

Range planning the route, pre-arranged signals, visibility, no unsafe actions during the tow.

2.6 Procedures to secure a vehicle and a machine on completion of towing are identified in accordance with company requirements.

Range adherence to Traffic Regulations and the Road Code, safe parking procedure, vehicle and machine security, reporting to supervisor and customer.

2.7 Procedures for checking the towing equipment for wear, security and damage and reporting any faulty equipment promptly to the supervisor is described in accordance with company requirements.

Range wire and fibre ropes, winching equipment, lifting equipment, chains, towing frames.

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