

Title	Demonstrate knowledge of belt and chain drive systems on heavy equipment, and repair them		
Level	4	Credits	2

Purpose	This unit standard is for people in the automotive repair industry. People credited with this unit standard are able to: demonstrate knowledge of belt drive systems on heavy equipment; demonstrate knowledge of chain drive systems on heavy equipment; repair belt drives; and repair chain drives.
----------------	--

Classification	Motor Industry > Automotive Transmission Systems
-----------------------	--

Available grade	Achieved
------------------------	----------

Explanatory notes

- 1 The following legislation and amendments are to be consulted and followed where applicable:
 - Health and Safety in Employment Act, 1992.
- 2 Reference to *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 to a professional and competent manner with due regard to safe working practices.
- 3 Because of the particular nature of this unit standard, it is essential that the practical assessment evidence is obtained from commercial jobs in the workplace under normal workplace conditions.

Outcomes and evidence requirements

Outcome 1

Demonstrate knowledge of belt drive systems on heavy equipment.

Range vee belts, multiple vee belts, flat belts, toothed belts, vee pulleys, variable speed vee pulleys, flat pulleys, toothed pulleys.

Evidence requirements

- 1.1 The characteristics of belt drives are described according to manufacturer's specifications.

Range advantages, disadvantages, construction, tension, power transmitted.

1.2 The maintenance of belt drives is described according to equipment manufacturer's workshop manual instructions.

Range pulley wear, belt wear, misalignment, tension adjustment.

Outcome 2

Demonstrate knowledge of chain drive systems on heavy equipment.

Range single roller chain, multiple roller chain, link-belt chain.

Evidence requirements

2.1 The characteristics of chain types used in heavy equipment are described according to manufacturer's specifications.

Range advantages, disadvantages, construction, speed ratios and drive direction, power transmitted.

2.2 The maintenance of chain drive systems is described according to equipment manufacturer's workshop manual instructions.

Range sprocket wear, chain wear, misalignment, tension adjustment, lubrication.

Outcome 3

Repair belt drives.

Range vee belt drives, flat belt drives, toothed belt drives.

Evidence requirements

3.1 Safe working practices are observed throughout the task.

Range personal safety, safety of others, equipment safety.

3.2 Suitable tools and equipment are selected and used that enable the belt drives to be repaired.

3.3 Worn and damaged belts and pulleys are returned to full serviceability.

Range replace with approved replacement parts, repair, adjust.

3.4 The belt drive system is tested for correct operation and the results are noted.

Outcome 4

Repair chain drives.

Range single roller chain, multiple roller chain, link-belt chain.

Evidence requirements

- 4.1 Safe working practices are observed throughout the task.
Range personal safety, safety of others, equipment safety.
- 4.2 Suitable tools and equipment are selected and used that enable the chain drives to be repaired.
- 4.3 Worn and damaged chains and sprockets are returned to full serviceability.
Range replace with approved replacement parts, repair, adjust.
- 4.4 Any chain tensioning device which is part of the chain drive system is returned to full serviceability as specified by the manufacturer.
Range replace with approved replacement parts, repair, adjust.
- 4.5 The chain drive is checked for operational security and efficiency and lubricated as specified by the manufacturer.

Replacement information	This unit standard has been replaced by unit standard 24321 and unit standard 24322.
--------------------------------	--

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	28 September 1994	31 December 2016
Review	2	21 February 1999	31 December 2016
Review	3	25 February 2008	31 December 2016
Rollover	4	19 November 2010	31 December 2016
Rollover	5	18 February 2016	31 December 2020

Consent and Moderation Requirements (CMR) reference	0014
--	------

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Please note

Providers must be granted consent to assess against standards (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 granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Consent requirements and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR 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.

This unit standard is expiring