



Australian Government

AURHTR105 Diagnose and repair heavy commercial trailer electronically controlled roll stability systems

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with AUR Automotive Retail, Service and Repair Training Package Version 6.0

Application

This unit describes the skills and knowledge required to diagnose and repair faults in the electronically controlled stability systems of heavy commercial trailers over 4.5 tonnes. The unit involves preparing for the task, sourcing a diagnostic testing strategy, diagnosing the cause of the fault, carrying out the repair, performing post-repair testing, and completing workplace processes and documentation.

The unit applies to those who work in the automotive service and repair industry. The electronically controlled roll, stability systems are fitted to heavy commercial trailers.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Unit Sector

Mechanical – Heavy Vehicle Technical – Electrical and Electronics

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to diagnose and repair heavy commercial trailer roll stability system	1.1 Identify job requirements from workplace instructions 1.2 Identify required information for diagnosis activity 1.3 Analyse diagnostic options and source testing strategy to identify cause of fault using workplace and manufacturer procedures 1.4 Identify hazards and environmental issues associated with diagnose and repair activity, assess potential risks and implement control measures in line with workplace policies and procedures

ELEMENT	PERFORMANCE CRITERIA
	1.5 Identify tools and equipment required for testing strategy and establish serviceability according to workplace procedures
2. Diagnose heavy commercial trailer roll stability system	2.1 Implement diagnostic tests set out in testing strategy according to manufacturer and workplace procedures, and workplace health and safety requirements 2.2 Identify cause of fault through analysis of diagnostic test results 2.3 Confirm and report cause of fault according to workplace procedures 2.4 Develop and report recommendations for necessary repairs according to workplace procedures
3. Repair heavy commercial trailer roll stability system	3.1 Identify required information for repair activity 3.2 Identify required tools, equipment and materials required for repair activity and establish serviceability according to workplace procedures 3.3 Carry out repairs according to workplace and manufacturer procedures, manufacturer specifications, workplace health and safety and environmental requirements 3.4 Carry out post-repair testing according to workplace procedures, workplace health and safety and environmental requirements
4. Complete work processes	4.1 Conduct final inspection according to workplace procedures and confirm commercial trailer is ready for use 4.2 Clear work area and dispose of or recycle materials according to workplace procedures 4.3 Complete documentation according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Learning	- Locates required sources of information efficiently - Develops a sequenced plan for a specific task
Reading	Organises and interprets technical information from workplace procedures, manufacturer procedures and manufacturer specifications

SKILL	DESCRIPTION
Oral communication	• Clarifies instructions • Obtains information from customers and supervisors
Numeracy	• Measures roll stability system components • Uses mathematical operations • Calculates deviations and tolerances from manufacturer specifications
Planning and organising	• Plans own work requirements • Prioritises actions to achieve required outcomes • Ensures tasks are completed within workplace timeframes
Technology	• Operates diagnostic and test equipment

Unit Mapping Information

Supersedes and is equivalent to AURHTR005 Diagnose and repair heavy commercial trailer electronically controlled roll stability systems.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>

Assessment Requirements for AURHTR105 Diagnose and repair heavy commercial trailer electronically controlled roll stability systems

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- diagnose and repair a fault in the electronically controlled, roll stability systems of at least two different heavy commercial trailers.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- methods to locate and interpret information required to diagnose and repair heavy commercial trailer electronically controlled roll stability systems including:
 - information provided by customers and supervisors
 - manufacturer specifications and procedures or equivalent documentation
- workplace procedures required to diagnose and repair heavy commercial trailer electronically controlled roll stability systems, including:
 - establishing serviceability of tools and equipment
 - documentation procedures
 - housekeeping procedures, including:
 - examination of tools and equipment
 - storage of equipment
 - identification, tagging and isolation of faulty equipment
 - disposal of excess materials
 - recycling procedures
- workplace health and safety (WHS) requirements relating to diagnosing and repairing heavy commercial trailer electronically controlled roll stability systems, including procedures for using specialised tools and equipment

- environmental requirements relating to diagnosing and repairing heavy commercial trailer electronically controlled roll stability systems
- purpose and operation of heavy commercial trailer electronically controlled roll stability systems and components, including:
 - roll stability control module
 - wheel speed sensor
 - yawl sensor
 - load sensor
 - electrical wiring and connector
- diagnostic testing procedures for heavy commercial trailer electronically controlled, roll stability systems, including:
 - accessing and interpreting diagnostic trouble codes
 - analysing system operation using electrical test equipment, scan tools and another industry-relevant test equipment
 - visual, aural and functional assessments, including component damage and wear
- repair procedures for heavy commercial trailer electronically controlled roll stability systems, including procedures for:
 - roll stability control module
 - wheel speed sensor
 - yawl sensor
 - load sensor
 - electrical wiring and connector
- post-repair testing procedures for heavy commercial trailer electronically controlled roll stability systems.

Assessment Conditions

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessment must include direct observation of tasks.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the trailer electronically controlled roll stability systems that they have worked on, e.g. repair orders.

Assessors must verify performance evidence through questioning on skills and knowledge to ensure correct interpretation and application.

The following resources must be made available:

- automotive repair workplace or simulated workplace
- workplace instructions
- manufacturer heavy trailer roll stability specifications
- two different heavy commercial trailers with faults in their electronically controlled roll stability systems

- diagnostic equipment for heavy trailer electronically controlled roll stability systems
- tools, equipment and materials appropriate for repairing and adjusting heavy trailer electronically controlled roll stability systems.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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