



Australian Government

AURLTD002 Service and repair light vehicle lift assisted suspension systems

Release: 1

AURLTD002 Service and repair light vehicle lift assisted suspension systems

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to service, locate and repair faults in hydraulic or pneumatic light vehicle lift assisted suspension systems. It involves preparing for the task, servicing, repairing and post-repair testing the system, and completing workplace processes and documentation.

It applies to those working in the automotive service and repair industry. The lift assisted suspension systems include those of light vehicles, four wheel drives or light commercial vehicles.

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

Competency Field

Mechanical - Light Vehicle

Unit Sector

Technical - Steering and Suspension

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold and italicised text is used, further information is detailed in the range of conditions section.
1. Prepare to service and repair lift assisted suspension system	1.1 Job requirements are determined from workplace instructions 1.2 Service and repair information is sourced and interpreted 1.3 Hazards associated with the work are identified and risks are

Elements Elements describe the essential outcomes.	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold and italicised text is used, further information is detailed in the range of conditions section.
	managed 1.4 Tools, equipment and materials are selected and checked for serviceability
2. Inspect and service lift assisted suspension system	2.1 System is inspected according to workplace procedures and safety requirements 2.2 Inspection results are compared with manufacturer specifications to identify service and repair requirements 2.3 Inspection findings are reported according to workplace procedures 2.4 Service and adjustments are carried out according to manufacturer specifications, workplace procedures, and safety and environmental requirements , and without causing damage to components or systems 2.5 Post-service testing is carried out according to workplace procedures
3. Repair lift assisted suspension system	3.1 Repair information is sourced and interpreted 3.2 Repair options are analysed and those most appropriate to the circumstances are selected 3.3 Repair tools, equipment and materials are selected and prepared 3.4 System is repaired according to manufacturer specifications, workplace procedures, and safety and environmental requirements, and without causing damage to components or systems 3.5 Post-repair testing is carried out according to workplace procedures
4. Complete work processes	4.1 Final inspection is made to ensure work is to workplace expectations and vehicle is presented ready for use 4.2 Work area is cleaned, waste and non-recyclable materials are disposed of, and recyclable material is collected 4.3 Tools and equipment are checked and stored according to workplace procedures 4.4 Workplace documentation is processed according to workplace procedures

Foundation Skills

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

Skills	Description
Learning skills to:	locate appropriate sources of information efficiently.
Reading skills to:	interpret information from manufacturer and workshop literature when seeking lift assisted suspension system service and repair procedures and specifications.
Writing skills to:	legibly and accurately fill out workplace documentation when reporting inspection findings, making recommendations, and recording parts and material used.
Oral communication skills to:	- clarify instructions - report inspection findings to appropriate personnel.
Numeracy skills to:	- measure and calculate suspension system heights - calculate distance, volume and pressure for servicing and repairing lift assisted suspension systems.
Problem solving skills to:	- determine underlying causes of faults - identify risk factors and take action to minimise risk.

Range of Conditions

This section specifies work environments and conditions that may affect performance.

Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Bold italicised wording, if used in the performance criteria, is detailed below.

<i>Safety requirements</i> must include:	- work health and safety (WHS) and occupational health and safety (OHS) requirements, including procedures for: - using vehicle lifting and supporting equipment - working with lift assisted suspension systems, including: - hydraulic and pneumatic pressures - hydraulic fluids - stored energy in springs.
<i>Environmental requirements</i> must include:	procedures for trapping, storing and disposing of fluids released from suspension systems.

Unit Mapping Information

Equivalent to AURLTD3002 Service and rectify faults in lift assisted suspension systems

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for AURLTD002 Service and repair light vehicle lift assisted suspension systems

Modification History

Release	Comment
Release 1	New unit of competency.

Performance Evidence

Before competency can be determined, individuals must demonstrate they can perform the following according to the standards defined in this unit's elements, performance criteria, range of conditions and foundation skills:

- service and repair two different lift assisted suspension systems, including one of the following:
 - pneumatic system
 - hydraulic system.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to servicing and repairing light vehicle lift assisted suspension systems, including procedures for:
 - using vehicle lifting and supporting equipment
 - working with lift assisted suspension systems, including:
 - hydraulic and pneumatic pressures
 - hydraulic fluids
 - stored energy in springs
- environmental requirements, including procedures for trapping, storing and disposing of fluids released from suspension systems
- operating principles of lift assisted suspension systems, including:
 - hydraulic systems
 - pneumatic systems
- application, purpose and operation of lift assisted suspension system components, including:

- hydraulic system, including:
 - hydraulic pump and reservoir
 - switches
 - valves, hoses and connectors
 - gauges
 - hydraulic cylinder
- pneumatic system, including:
 - compressor
 - switches
 - valves, hoses and connectors
 - gauges
 - airbags
- inspection and servicing procedures for lift assisted suspension systems, including:
 - component wear analysis
 - checking fluid and air leaks
 - checking and adjusting ride and curb height
 - replacing suspension fluids
- repair procedures for lift assisted suspension systems, including removing, repairing and replacing lift assisted suspension components
- post-repair testing procedures for lift assisted suspension systems.

Assessment Conditions

Assessors must satisfy NVR/AQTF assessor requirements.

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 light vehicle lift assisted suspension systems that they have serviced and repaired, 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:

- mechanical repair workplace or simulated workplace
- workplace instructions
- manufacturer specifications for light vehicle lift assisted suspension system
- two different light vehicles with lift assisted suspension systems requiring service and repair
- tools, equipment and materials appropriate for inspecting, servicing, repairing and adjusting light vehicle lift assisted suspension systems.

Links

Companion Volume implementation guides are found in VETNet -

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

Companion Volume implementation guides are found in VETNet -

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