



Australian Government

AURTTA105 Select and use bearings, seals, gaskets, sealants and adhesives

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 select and use bearings, seals, gaskets, sealants and adhesives in the automotive vehicle industry. It involves preparing for the task, selecting and using sealants and adhesives, preparing and installing bearings, seals and gaskets, and completing workplace processes and documentation.

The unit applies to those working in the automotive service and repair industry. It includes agricultural machinery, heavy commercial vehicles, light vehicle, marine vessels, mobile plant machinery, motorcycles or outdoor power equipment. The vehicles used will vary based upon the occupation and work context of the learner.

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

Unit Sector

Mechanical Miscellaneous Technical

Elements and Performance Criteria

ELEMENTS	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 select and use bearings, seals, gaskets, sealants and adhesives	1.1 Identify job requirements from workplace instructions 1.2 Obtain and interpret technical information required for the job 1.3 Identify hazards associated with the work, assess potential risks and implement control measures in line with workplace policies and procedures 1.4 Identify tools and equipment required for the job and establish serviceability according to workplace procedures

ELEMENTS	PERFORMANCE CRITERIA
2. Install bearings, seals and gaskets	2.1 Select sealants and adhesives according to manufacturer specifications, workplace procedures, and workplace health and safety requirements 2.2 Apply sealants and adhesives according to manufacturer specifications, workplace procedures, and workplace health and safety requirements 2.3 Store sealants and adhesives according to manufacturer specifications and workplace procedures 2.4 Carry out installation of bearings, seals and gaskets according to manufacturer specifications, workplace procedures, workplace health and safety and environmental requirements
3. Complete work processes	3.1 Conduct final inspection according to workplace procedures and confirm vehicle is ready for use 3.2 Clear work area and dispose of or recycle materials according to workplace procedures 3.3 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.
Reading	Interprets information from manufacturer and workshop literature when seeking specifications and procedures.
Oral communication	- Clarifies instructions - Reports inspection findings - Makes repair recommendations.
Numeracy	- Measures and adjusts automotive components - Calculates deviations and tolerances from manufacturer specifications - Uses basic mathematical operations, including addition and subtraction, to calculate sealant and adhesive volumes.
Planning and organising	- Plans own work requirements - Prioritises actions to achieve required outcomes - Ensures tasks are completed within workplace timeframes.

SKILL	DESCRIPTION
Technology	• Uses precision tools and equipment.

Unit Mapping Information

Supersedes and is equivalent to AURTTA005 Select and use bearings, seals, gaskets, sealants and adhesives.

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 AURTTA105 Select and use bearings, seals, gaskets, sealants and adhesives

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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:

- prepare and install:
 - at least two of the following bearing types:
 - roller type bearing
 - ball type bearing
 - plain type bearing
 - at least two different gaskets
 - at least two different seals
- select and use at least two different sealants and adhesives.

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 select and use bearings, seals, gaskets, sealants and adhesives:
 - manufacturer specifications, procedures and supporting information for preparing, inspecting and installing sealants and adhesives
 - manufacturer specifications, procedures and supporting information for preparing, inspecting and installing bearings, seals and gaskets
- workplace procedures required to select and use bearings, seals, gaskets, sealants and adhesives, including:
 - establishing the 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 selecting and using bearings, seals, gaskets, sealants and adhesives, including:
 - procedures for working safely with sealants and adhesives, lubricants and greases
- environmental requirements relating to selecting and using bearings, seals, gaskets, sealants and adhesives, including:
 - procedures for trapping, storing and disposing of excess materials produced when applying sealants and adhesives
 - procedures for trapping, storing and disposing of lubricants and greases released during work processes
- identification and function of:
 - bearings, including:
 - ball
 - roller
 - plain
 - seals, including:
 - lip
 - face
 - O ring
 - square section ring
 - metal surface
 - gaskets, including:
 - treated paper
 - cork
 - composite materials
 - metal, synthetic, rubber, fibre, and nylon
- types, characteristics, uses and limitations of sealants and adhesives, including application techniques
- inspection, service, installation and adjustment procedures, including:
 - bearings, including:
 - roller types
 - ball types
 - plain types
 - seals and sealing surface condition
 - gaskets
- types and applications of bearing lubricants and greases.

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 bearings, seals, gaskets, sealants and adhesives they have selected and used, 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 specifications relating to bearings, seals, gaskets, sealants and adhesives
- vehicle or equipment requiring the application of bearings, seals, gaskets, sealants and adhesives
- bearings, seals, gaskets, sealants and adhesives as specified in the performance evidence
- tools, equipment and material appropriate for installing bearings, seals and gaskets.

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

Links

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