



Australian Government

AURTTX013 Remove and replace clutch assemblies

Release: 1

AURTTX013 Remove and replace clutch assemblies

Modification History

Release	Comment
Release 1	New unit of competency

Application

This unit describes the performance outcomes required to remove and replace the clutch assembly of a vehicle. It requires the learner to plan and prepare the task; remove the clutch assembly and inspect it and its associated components; replace the clutch assembly and check the clutch operation; and maintain the work area, tools and equipment.

It applies to those undertaking a Vocational Education and Training in Schools (VETiS) or pre-vocational qualification as preparation to entering the automotive service and repair or automotive manufacturing industry.

The unit is designed for use in a highly supervised context and is not suitable for use in a vocational qualification.

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

Competency Field

Mechanical Miscellaneous

Unit Sector

Technical - Transmission

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 italicised text is used, further information is detailed in the range of conditions section
1. Prepare to remove and replace clutch assembly	1.1 <i>Safety and environmental requirements</i> are sourced and interpreted 1.2 Task instruction is interpreted and clutch assembly to be worked on is identified

ELEMENTS	PERFORMANCE CRITERIA
	1.3 Manufacturer specifications and workplace procedures for clutch assembly removal and replacement are sourced and interpreted 1.4 Potential hazards and risks associated with task are identified and reported to workplace supervisor 1.5 Tools and equipment required for removing and replacing clutch assembly are identified according to manufacturer specifications
2. Remove clutch assembly	2.1 Tools, equipment and materials are selected and checked prior to use according to manufacturer specifications and safety requirements 2.2 Clutch assembly is removed according to workplace procedures and safety and environmental requirements, and without causing damage to components, tools or equipment 2.3 Clutch components are identified and inspected according to manufacturer specifications 2.4 Clutch assembly component inspection results are recorded
3. Replace clutch assembly	3.1 Clutch assembly components are prepared for assembly 3.2 Clutch is replaced according to safety and environmental requirements, workplace procedures and manufacturer specifications, and without causing damage to components, tools or equipment 3.3 Clutch assembly finger height is measured and compared to manufacturer specifications
4. Complete work processes	4.1 Final inspection is made to ensure work meets task instruction and workplace standards, and clutch assembly is presented ready for use or storage according to workplace procedures 4.2 Work area is cleaned, waste and non-recyclable materials are disposed of, and recyclable material is collected and stored according to environmental requirements and workplace procedures 4.3 Tools and equipment are checked and stored according to workplace procedures, or tagged and reported where necessary 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
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Skills	Description
Learning skills to:	locate appropriate sources of vehicle clutch assembly information and clutch assembly removal and replacement procedures.
Reading skills to:	- select and interpret key information from manufacturer specifications, safety requirements and workplace procedures to safely remove and replace clutch assemblies - select and interpret key information from environmental requirements and workplace procedures to ensure a clean and safe work site.
Writing skills to:	legibly and accurately fill out workplace documentation using correct industry terminology and conventions.
Oral communication skills to:	participate effectively in verbal exchanges using questioning and active listening to request, clarify and clearly convey information.
Numeracy skills to:	- read and interpret numerical information in clutch system information - use specialist tools and measuring equipment correctly, including verniers and torque wrenches, and report and record the results correctly using relevant mathematical symbols and conventions (e.g. mm for millimeters) - use basic mathematical operations, including addition, subtraction, multiplication and division, to calculate length and clearances.
Planning and organising skills to:	plan own work requirements and prioritise actions to achieve required outcomes.
Self-management skills to:	recognise own limitations when selecting and using tools and equipment and seek timely advice.
Problem-solving skills to:	- identify potential or actual hazards and take action to minimise risk - refer problems that cannot be readily resolved and seek assistance from workplace supervisor.
Technology skills to:	set up and operate equipment and tools required to remove and replace a clutch assembly.

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 and environmental requirements</i> must include:	• information about key aspects of work health and safety (WHS), occupational health and safety (OHS) and environmental requirements, including: • use of personal protective equipment, including safety glasses, ear protection and safety footwear • use of hand tools and lifting equipment • application of procedures for handling used transmission fluid and asbestos-based products, including brake dust.
<i>Tools, equipment and materials</i> must include:	• automotive hand tools • transmission lifting equipment • clutch aligning tool • cleaning agents.
<i>Clutch assembly</i> must include:	• the complete clutch assembly from one of the following: • passenger or light commercial motor vehicle • heavy vehicle • motorcycle • constructed vehicle.

Unit Mapping Information

No equivalent unit.

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 AURTTX013 Remove and replace clutch assemblies

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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:

- correctly remove and replace a clutch assembly from an operating vehicle with a manual transmission.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- key aspects of work health and safety (WHS), occupational health and safety (OHS) and environmental requirements, including:
 - use of personal protective equipment, including safety glasses, ear protection and safety footwear
 - use of hand tools and lifting equipment
 - safety data sheets (SDS) and procedures for handling and disposing of waste brake fluid, lubricants and asbestos-based products, including brake dust
- clutch assembly types, application and basic operation, including:
 - diaphragm clutch
 - coil spring clutch
- clutch assembly removal procedures
- clutch assembly and associated component inspection procedures
- clutch assembly replacement procedures, including:
 - clutch aligning
 - clutch finger height measurement
- work area clean-up and maintenance requirements.

Assessment Conditions

Assessors must satisfy SNR/AQTF assessor requirements.

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

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the clutch assemblies that they have removed and replaced, 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 workplace or simulated workplace
- personal protective equipment appropriate to the workplace
- an appropriate vehicle fitted with a manual transmission and clutch assembly
- automotive hand tools
- transmission lifting machine
- clutch aligning tool
- cleaning agents.

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