



Australian Government

AURTTB013 Machine brake drums and brake disc rotors

Release: 1

AURTTB013 Machine brake drums and brake disc rotors

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the skills and knowledge required to measure, evaluate and machine vehicle brake drums and brake disc rotors to manufacturer specifications. It involves preparing for the task, machining disc brake rotors and brake drums, and completing workplace processes and documentation.

This unit applies to those working in the automotive service and repair industry.

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

Unit Sector

Technical - Brakes

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to machine brake drums and brake disc rotors	1.1 Identify job requirements from workplace instructions 1.2 Obtain and interpret brake drum and disc rotor machining procedures and information to identify machining options required for the job 1.3 Identify hazards and environmental issues, assess potential risks and implement control measures in line with workplace policies 1.4 Identify and examine tools and equipment required for the job, including disc and drum brake lathe and examine for serviceability 1.5 Measure brake drums and brake disc rotors and evaluate against manufacturer specifications 1.6 Prepare brake drums and brake disc rotors for machining according to workplace procedures, workplace health and safety

	and environmental requirements
2. Carry out machining operations	2.1 Position brake drums and brake disc rotors in brake lathe according to manufacturer specifications, workplace procedures, and workplace health and safety requirements 2.2 Machine brake drums and brake disc rotors according to manufacturer specifications, workplace procedures and workplace health and safety requirements 2.3 Measure brake drums and brake disc rotors against manufacturer specifications according to workplace procedures 2.4 Visually evaluate brake drums and brake disc rotors to ensure safe operation according to workplace procedures
3. Complete work processes	3.1 Carry out final inspection to ensure work meets workplace expectations and brake drums and brake disc rotors are ready for use or stored according to workplace procedures 3.2 Clear work area and dispose of or recycle materials according to workplace procedures 3.3 Examine and store tools and equipment according to workplace procedures 3.4 Complete workplace documentation 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 relevant sources of machining brake drums and brake disc rotors information efficiently
Reading skills to:	- read and interpret information and ideas from workplace procedures and documentation on safe operating procedures for brake drums and brake disc rotor machining equipment - read and interpret information from manufacturer specifications
Writing skills to:	legibly and accurately fill out workplace documentation when recording measurements, and recording parts and material used
Oral communication skills to:	- clarify instructions - make repair recommendations

Numeracy skills to:	• measure braking drums and brake disc rotors • use basic mathematical operations, including addition and subtraction • calculate distances, tolerances and deviations from manufacturer specifications
Planning and organising skills to:	• plan own work requirements • prioritise actions to achieve required outcomes • ensure tasks are completed within workplace timeframes
Technology skills to:	• use braking system measuring equipment, including vernier calipers, micrometers and brake drum micrometers • use brake lathes

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AURTTB013 Machine brake drums and brake disc rotors (Release 1)	AURTTB003 Machine brake drums and brake disc rotors (Release 1)	Wording changes to ensure compliance with Standards for Training Packages. Removal of minor elements from foundation skills. Removal of references to OHS requirements. Removal of range of conditions. Addition of assessor requirements.	Equivalent

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 AURTTB013 Machine brake drums and brake disc rotors

Modification History

Release	Comment
Release 1	New unit of competency.

Performance Evidence

The candidate must demonstrate they can perform the following according to the standards defined in the elements, performance criteria and foundation skills of this unit.

The candidate must demonstrate evidence of machining the following:

- the four disc rotors of a four wheel disc brake system
- the two brake drums of a rear drum brake system or all four brake drums of a four wheel drum brake system
-

Knowledge Evidence

The candidate must demonstrate the following knowledge:

Key policies and procedures for machining brake drums and brake disc rotors including:

- how to locate and interpret manufacturer specifications or equivalent documentation and workplace procedures relating to machining brake drums and brake disc rotors
- the following workplace health and safety requirements relating to machining brake drums and brake disc rotors:
 - procedures for working safely with brake machining equipment
- the following measurement and evaluation procedures for brake drums and brake disc rotors:
 - using vernier calipers, micrometers, brake drum micrometers and dial gauge indicators
 - visual inspection procedures for brake drums and brake disc rotors
- environmental procedures for trapping, storing and disposing of metal swarf produced during machining
- workplace housekeeping and documentation procedures

Machining brake drums and brake disc rotors technical information including:

- the purpose and operation of the following brake drum and brake disc rotor machining equipment:

- off-vehicle machining
- on-vehicle machining
-

Assessment Conditions

The assessment must:

- include access to:
 - an automotive repair workplace or simulated workplace that reflects workplace conditions - where simulation is used, it must reflect real working conditions by modelling industry operating conditions and contingencies, as well as, using suitable facilities, equipment and resources
 - repair orders and workplace instructions relating to machining brake drums and brake disc rotors activity
 - workplace procedures relating to machining brake drums and brake disc rotors activity
 - manufacturer specifications or equivalent documentation for machining brake drums and brake disc rotors
 - brake drums and brake disc rotors requiring machining as specified in the performance evidence
 - brake drum and brake disc rotor machining equipment
 - measuring equipment for light vehicle braking systems including, vernier calipers, micrometers, brake drum micrometers and dial gauge indicators
- be demonstrated in the workplace or in a simulated environment that reflects workplace conditions
- be conducted in a safe environment
- be assessed in compliance with relevant policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed
- confirm consistent performance can be applied in a range of relevant workplace circumstances

Assessor Requirements

Assessors of this unit must:

- satisfy the assessor requirements in applicable vocational education and training legislation, frameworks and/or standards
-

Links

Companion Volume Implementation Guides are found in VETNet -

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