



Australian Government

AURTTB012 Attach friction materials and radius grind

Release: 1

AURTTB012 Attach friction materials and radius grind

Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the skills and knowledge required to attach brake and clutch friction materials using bonding, riveting or screwing methods and radius grind brake shoes. It involves preparing for the task, selecting and attaching friction material, radius grinding, and completing workplace processes and documentation.

This unit applies to those working within the automotive vehicle body repair industry. The friction materials include those in vehicles from all sectors of the 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 attach friction materials	1.1 Identify job requirements from workplace instructions 1.2 Obtain and interpret friction material attaching procedures and information in order to identify friction material attaching 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 tools and equipment required for the job and examine for serviceability 1.5 Measure components and evaluate against manufacturer specifications 1.6 Identify and prepare components for bonding or riveting according to workplace procedures, workplace health and safety

	and environmental requirements
2. Attach friction materials	2.1 Identify and prepare friction materials to be attached according to workplace procedures, workplace health and safety, and environmental requirements 2.2 Attach friction materials to components according to manufacturer specifications, workplace procedures, workplace health and safety and environmental requirements
3. Radius grind brake shoes	3.1 Obtain and interpret radius grinding procedures from manufacturer specifications 3.2 Radius grind brake shoes according to manufacturer specifications, workplace procedures, workplace health and safety and environmental requirements 3.3 Measure brake shoes against manufacturer specifications and according to workplace procedures and rectify any issues identified 3.4 Test brake shoes according to workplace procedures, workplace health and safety and environmental requirements
4. Complete work processes	4.1 Carry out final inspection to ensure work is to workplace expectations and components are ready for use or stored according to workplace procedures 4.2 Clear work area and dispose of or recycle materials according to workplace procedures 4.3 Examine and store tools and equipment according to workplace procedures 4.4 Complete 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 friction attaching material and radius grinding information efficiently
Reading skills to:	read and interpret information from workplace procedures and documentation on safe operating procedures for attaching friction materials and using radius grinding machinery
Writing skills to:	legibly and accurately fill out workplace documentation when making recommendations and recording parts and material used
Oral communication skills to:	- clarify instructions - report findings

	• make recommendations
Numeracy skills to:	• measure components • use basic mathematical operations, including addition and subtraction • calculate tolerances and deviations from manufacturer specifications
Problem solving skills to:	• identify risk factors and take action to minimise risk
Technology skills to:	• use radius grinding machinery • use measuring equipment including tape measures, rulers and vernier calipers

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AURTTB012 Attach friction materials and radius grind (Release 1)	AURTTB002 Attach friction materials and radius grind (Release 1)	Wording changes to ensure compliance with Standards for Training Packages. Minor additions to performance criteria. 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 AURTTB012 Attach friction materials and radius grind

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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 attach friction materials to and radius grind the following two vehicle components:

- one set of brake shoes
- one clutch plate
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Knowledge Evidence

The candidate must demonstrate the following knowledge:

Key policies and procedures for attaching friction materials and radius grinding including:

- how to locate and interpret manufacturers specifications or equivalent information and workplace procedures for attaching friction materials and radius grinding
- the following workplace health and safety requirements relating to attaching friction materials and radius grinding:
 - procedures for working with brake machining equipment
 - selecting and using personal protective equipment (PPE)
 - procedures for handling and controlling brake dust
- the following technical information relating to attaching friction materials and radius grinding including:
 - material selection procedures
 - procedures for preparing components for friction material attachment:
 - friction material removal procedures
 - component cleaning procedures
 - friction material shaping and sizing procedures
 - procedures for attaching friction materials:
 - bonding

- riveting
- procedures for radius grinding brake shoes
- environmental procedures for trapping, storing and disposing of brake dust produced during radius grinding
- workplace housekeeping and documentation procedures

Attaching friction materials and radius grinding technical information, including:

- coefficient of friction
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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 attaching friction materials and radius grinding activity
 - workplace procedures relating to attaching friction materials and radius grinding activity
 - manufacturer specifications or equivalent documentation for attaching friction materials and for radius grinding
 - PPE for attaching friction materials and radius grinding
 - brake shoes and clutch plate requiring friction material attachment and radius grinding
 - bonding and riveting materials
 - radius grinding machinery
 - equipment, hand and power tooling suitable for attaching friction materials and radius grinding
- 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

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