



Australian Government

AURTTJ111 Balance wheels and tyres

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Modification History

Release	Comments
1	This unit of competency was first released in AUR Automotive Retail, Service and Repair Training Package Release 9.0.

Application

This unit describes the skills and knowledge required to balance automotive wheels and tyres. It involves identifying and confirming work requirements; preparing for the work; inspecting, balancing and refitting wheel and tyre assemblies; and completing workplace processes and documentation.

It applies to those working within the automotive service and repair or wheel alignment industry. The wheels and tyres include those of light vehicles, heavy commercial vehicles, motorcycles or trailers. This unit does not apply to agricultural equipment or off-the-road tyres of mobile plant machinery.

Licensing/Regulatory Information

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

Pre-requisite unit(s)

No prerequisite units.

Competency field(s)

N/A

Unit sector(s)

Technical - Wheels and Tyres

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 balance wheels and tyres	1.1 Identify job requirements from workplace instructions 1.2 Obtain and interpret wheel and tyre balancing information from manufacturer specifications 1.3 Identify hazards and environmental issues, assess potential risks and implement control measures in line with workplace policies 1.4 Identify tools, equipment and materials required for the job and examine for serviceability
2. Conduct wheel and tyre pre-balance inspection	2.1 Carry out wheel and tyre pre-balance inspection according to manufacturer specifications, workplace procedures and workplace health and safety requirements 2.2 Report inspection findings according to workplace procedures, including recommendations for necessary repair or replacement
3. Carry out balancing procedures	3.1 Inspect wheel balancing machine according to manufacturer specifications, workplace procedures and safety requirements 3.2 Balance wheel according to manufacturer specifications, workplace procedures and safety requirements without causing damage to wheel or tyre
4. Complete work processes	4.1 Carry out final inspection to ensure work meets workplace expectations and vehicle and wheels are ready for use 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 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	locate relevant sources of balancing wheels and tyres information efficiently
Reading	read and interpret information from manufacturer specifications and workshop literature relating to wheel balance procedures and specifications

Writing	legibly and accurately fill out workplace documentation when reporting inspection findings, making recommendations, and recording parts and material used
Numeracy	- measure wheel balancing weights - use basic mathematical operations, including addition and subtraction, to calculate distances, tolerances and deviations from manufacturer specifications - calculate balance weights in metric and imperial units of measurement - set and calibrate wheel balancing machine
Technology	operate wheel balance machines

Range of conditions

No conditions apply to this unit of competency at the time of publication.

Unit Mapping Information

Current Code and Title	Previous Code and Title	Comments	Equivalence
AURTTJ111 Balance wheels and tyres	AURTTJ011 Balance wheels and tyres	Updates to the Application, Performance Evidence and Knowledge Evidence	Equivalent

Assessment Requirements for AURTTJ111 Balance wheels and tyres

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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 demonstrate balancing wheels and tyres that safely follows workplace procedures to meet required outcomes. This includes:

- balancing a minimum of four wheel and tyre assemblies across two different vehicles, including:
 - two steel wheel and tyre assemblies, and
 - two alloy wheel and tyre assemblies
- In the course of the above, the candidate must:
 - select appropriate balancing methods and techniques for steel and alloy wheels
 - conduct a pre-balance inspection for damage and excessive run-out

Knowledge Evidence

The candidate must demonstrate the following knowledge:

Key policies and procedures for balancing wheels and tyres, including:

- how to locate and interpret manufacturers specifications or equivalent information and workplace procedures for balancing wheels and tyres
- the following workplace health and safety requirements and procedures relating to balancing wheels and tyres:
 - working with balancing machines, including rotating components and flying objects
 - manually handling assemblies:
 - light vehicle wheel assemblies
 - high rim diameter assemblies
 - heavy vehicle wheel assemblies
- environmental requirements relating to balancing wheels and tyres

- procedures for pre-balance inspection of wheels and tyres
- workplace housekeeping and documentation procedures

Wheel balancing machinery, including:

- off vehicle balancers
- on vehicle balancers

Wheel balancing equipment and concepts, including:

- wheel and tyre run-out
- static and dynamic balance
- the following out of balance effects on wheels:
 - wheel hop or tramp
 - wheel shimmy
 - vibration
 - tread wear
- types and applications of wheel weights

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 wheel balancing they have conducted, 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 or repair orders
- manufacturer wheel and tyre balancing specifications
- two different vehicles or machinery requiring wheel/tyre balancing
- four different steel wheels for balancing
- four different alloy wheels for balancing
- tools, equipment and materials appropriate for balancing wheels and tyres, including:
 - wheel balancing machinery
 - steel and alloy wheels

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

Link

Companion volumes, including implementation guides, are found on the national training register - <https://training.gov.au/training/details/AUR>.