



Australian Government

AURKTJ004 Conduct non-destructive testing of wheel and rim assemblies

Release: 1

AURKTJ004 Conduct non-destructive testing of wheel and rim assemblies

Modification History

Release	Comment
Release 1	New unit of competency

Application

This unit describes the performance outcomes required to conduct non-destructive testing of vehicle wheel and rim assemblies. It requires the ability to use technical skills to prepare for and conduct non-destructive testing.

It applies to those who conduct non-destructive testing of vehicle wheels and rims in order to determine their serviceability by checking for material defects and malfunctions.

Licensing, legislative, regulatory or certification requirements may apply to this unit in some jurisdictions. Users are advised to check with the relevant regulatory authority.

Competency Field

Mechanical - Mobile Plant

Unit Sector

Technical - Wheels and Tyres

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 for non-destructive testing	1.1 Workplace procedures and manufacturer instructions are used to determine job requirements 1.2 Inspection area is cleaned and prepared for testing using workplace materials and in line with required procedures 1.3 Tools and equipment are checked for safety and serviceability 1.4 Non-destructive test equipment is prepared according to

ELEMENTS	PERFORMANCE CRITERIA
	manufacturer instructions and workplace procedures 1.5 Work area and equipment problems are reported to appropriate personnel
2. Perform non-destructive testing	2.1 Testing methods are determined in line with workplace procedures and manufacturer specifications 2.2 Hazards and safety requirements associated with testing are identified and addressed 2.3 Testing is performed according to workplace procedures and manufacturer instructions 2.4 Non-conformance and defects are identified against workplace procedures and manufacturer instructions 2.5 Test results are verified and documented according to workplace procedures
3. Clean work area	3.1 Testing equipment is maintained and stored according to workplace procedures 3.2 Work area is cleaned and prepared for subsequent use

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Skills	Description
Reading skills to:	- read and interpret information in: - written workplace procedures - manufacturer instructions - charts, lists, drawings and other applicable documents - collect, analyse, organise and understand information relating to non-destructive test results.
Writing skills to:	produce reporting documentation detailing non-destructive test results.
Oral communication skills to:	- confirm work requirements - report work outcomes and problems.
Numeracy skills to:	- read and interpret both metric and imperial systems of measurement. - read and interpret mathematical information including: - charts and drawings - use mathematical ideas and techniques to complete

Skills	Description
	measurements and estimate material requirements required for non-destructive testing.
Planning and organising skills to:	• prepare and lay out work area, and obtain equipment and material to avoid wastage, backtracking and workflow interruptions.
Teamwork skills to:	• work with team members, such as technical supervisors, technicians and workers.

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 AURKTJ004 Conduct non-destructive testing of wheel and rim assemblies

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Performance Evidence

Before competency can be determined, individuals must have competently conducted non-destructive testing on wheels and rims on a minimum of four occasions, using at least two of the following hardness testing methods:

- penetrant
- magnetic
- Rockwell
- Brinell.

Individuals must demonstrate they can:

- prepare equipment for testing, including zeroing and calibration checks
- select and apply testing methods
- verify test results
- record test outcomes.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- principles and methods of penetrant, magnetic, Rockwell and Brinell hardness testing, and limitations, advantages and hazards associated with the testing
- non-destructive testing terminology
- non-destructive test equipment use, maintenance and storage
- non-destructive testing preparation procedures
- non-destructive testing verification methods and techniques
- non-destructive testing analysis techniques
- reporting and recording procedures relevant to non-destructive testing.

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 equipment that they have worked on, e.g. test results.

Assessors must verify performance evidence through questioning on skills and knowledge to ensure correct interpretation and application.

The following resources must be made available:

- Australian standards relevant to the non-destructive testing of wheel and rim assemblies
- workplace procedures and manufacturer instructions
- non-destructive testing equipment
- workplace location or simulated workplace.

Links

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