Australian Government

Department of Education, Employment and Workplace Relations

AUMATK4006 Test plant, tooling, equipment, product or systems

Release: 1

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Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the application of the required skills and knowledge to prepare, set up and test plant or components thereof, tooling, equipment, product or system in accordance with an industry standard test. No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

Application of the unit	The unit applies to the automotive and related component manufacturing environment and involves application of skills and knowledge to be used within the scope of the person's job and authority.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability skills	This unit contains Employability Skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan for the testing of plant or components thereof, tooling, equipment, product or systems	1.1. Applicable ***organisational requirements*** relevant to the testing of ***plant or components thereof***, ***tooling***, ***equipment***, ***product or systems*** are verified and complied with throughout the work activity 1.2. ***Instructions***, plans and/or workplace check sheets are read and interpreted to identify processes and materials to complete work tasks 1.3. Required test equipment and tools are identified, accessed and obtained in accordance with work plans and organisational and ***inventory procedures*** 1.4. Testing sequence and specified ***procedures for the tests*** are determined in accordance with relevant national and international standards, organisational procedures and manufacturers' instructions
2. Prepare and calibrate testing equipment	2.1. Test equipment and tools are checked to ensure that they are functioning correctly according to operating instructions and/or manuals 2.2. Test equipment is prepared for testing and where necessary, calibration verified in accordance with organisational standards or requirements 2.3. Components to be tested are prepared and connected to the test equipment
3. Conduct tests of components of plant, tooling, equipment, product or systems	3.1. Components are functionally tested or cycled through the prescribed test procedures in accordance with the test specifications 3.2. Evidence of wear, unserviceability, malfunction or out-of-tolerance adjustment is detected and reported, and any necessary action taken
4. Interpret test results of components of plant, tooling, equipment, product or systems	4.1. Results of tests are reviewed and interpreted to identify possible causes of malfunction or unserviceability using maintenance records and/or fault diagnosis guides 4.2. Further tests are conducted where required to confirm or refute potential causes of malfunction or unserviceability
5. Initiate corrective action on test results	5.1. Remedial action is implemented where indicated and in accordance with organisational procedures 5.2. Recommendations are documented in accordance with organisational procedures
6. Complete the work processes	6.1. The outcomes of all tests and observations, and any subsequent analysis of detected faults, malfunctions or out-of-tolerance adjustments are reported and recorded in maintenance logs or other records in accordance with organisational procedures

ELEMENT	PERFORMANCE CRITERIA
	6.2. Test results and recommended actions are reported to relevant personnel for advice and/or approval 6.3. Test documentation is stored and/or distributed in accordance with organisational procedures 6.4. Equipment and tools are cleaned, inspected for serviceable condition and stored at the completion of the process in accordance with organisational procedures 6.5. Work area is cleaned and restored in accordance with organisational procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Required skills

- speak clearly and directly in order to deliver information to a variety of audiences of varying technical background
- apply teamwork to a range of situations to overcome problems and enhance performance
- solve problems particularly in teams in order to meet performance indicators
- show initiative in adapting to changing work conditions or contexts particularly when working across a variety of work areas
- access, interpret and apply information on relevant organisation policies, procedures and instructions, particularly to notify colleagues of test outcomes
- manage time when planning, preparing and organising work priorities
- take responsibility for organising own work priorities.

Required knowledge

- relevant Occupational Health and Safety and Environmental legislation, regulations, standards and codes of practice and organisation policies and procedures needed to carry out work in a manner which ensures the safety of people, equipment and the environment.
- planning for testing
- preparing and/or calibrating test equipment
- evaluation techniques
- vehicle structures
- visual analysis techniques
- interpreting test results
- operation of systems and components
- organisational supply/replenishment systems and processes for materials, equipment and tools
- types of tools and equipment and procedures for their safe use, operation and maintenance
- established communication channels and protocols
- problem identification and resolution
- procedures for the recording, reporting and maintenance of organisation records and information.

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.	
Overview of assessment	

Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the following is essential:
	• compliance with relevant legislation, regulations, standards, codes of practice and established safe practices and organisation policies and procedures for testing components/materials of plant, equipment, product, or systems
	• maintaining a working knowledge of current organisation inventory procedures
	• working and communicating effectively and positively with others involved in the work
	• applying, within authority, the requirements of the job or work role which could include:
	  • preparing for tests or trials
	  • performing tests or trials
	  • preparing reports of results
	  • achieving work quality goals
	  • completing work area housekeeping requirements including the documentation of project activity and process outcomes
	• modify activities to cater for variations in organisation context and environment.

Context of and specific resources for assessment	• assessment of the competency should take place in a safe working environment in a passenger motor vehicle manufacturing plant or simulated environment using tools/equipment/machinery required for the production process without undue disruption to the production process • assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints.
Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit: • assessment methods must confirm consistency and accuracy of performance (over time and in a range of organisation relevant contexts) together with application of underpinning knowledge • assessment methods must be by direct observation of tasks and include questioning on underpinning knowledge to ensure its

EVIDENCE GUIDE	
	correct interpretation and application • assessment may be applied under project related conditions (real or simulated) and require evidence of process • assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances.

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording in the Performance Criteria is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.	
Organisation requirements may include:	• access and equity principles and practices • environmental management (waste disposal, recycling and re-use guidelines) • emergency and evacuation procedures • equipment use procedures • ethical standards • legal obligations • maintenance and storage procedures • OHS requirements • organisational and site guidelines • policies and procedures relating to own role and responsibility • procedural manuals • quality assurance guidelines • quality and continuous improvement processes and standards • recording and reporting guidelines.
Plant or components thereof, ***tooling***, ***equipment***, ***product or systems*** may include:	• components of plant, tooling, equipment, product and or systems used in the manufacturing or testing process. Within this context product is further defined as a component, sub-component or material of a passenger motor vehicle. Plant, tooling, equipment and systems are further defined as components or sub-components of the plant, tooling, materials or systems of the testing or manufacturing infrastructure/resources.
Instructions may include:	• workplace procedures relating to the use and operation of tools and equipment • departmental requirements • workplace instructions, including job sheets, plans, specifications, drawings and designs • workplace procedures relating to reporting and communications • manufacturers' instructions for the use of equipment and materials.
Inventory procedures may include:	• automatic or demand driven ordering and replenishment, central or local storage and maintenance procedures and systems and supply or demand driven disposal processes.

RANGE STATEMENT	
Procedures for the tests may include:	• tests to establish compliance with a standard, such as an ADR standard, or to establish performance limits of product/materials or test/production plant/tooling/equipment/materials/ systems. Tests are generally predetermined.

Unit Sector(s)

Unit sector	Technical - Tools and Equipment

Competency field

Competency field	Manufacturing - Common

Co-requisite units

Not applicable.