



Australian Government

Department of Education, Employment and Workplace Relations

AURT225667A Use and maintain measuring equipment

Release: 1

AURT225667A Use and maintain measuring equipment

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the competence required to use and maintain measuring equipment used in general automotive retail, service and/or repair and of a non-specialist nature.
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Application of the Unit

Application of the unit	<p>Work involved is to include measurement of length, width, squareness, flatness, angles, roundness, depth, clearances, run out, resistance, current flow, voltage, pressure, temperature or any measurement that can be taken from analogue or digital devices, imperial and metric measurement.</p> <p>The unit includes identification and confirmation of work requirement, preparation for work, conduct of measurements, analysis and documenting of outcomes, maintenance of equipment and completion of work finalisation processes, including clean-up and documentation.</p> <p>Work requires individuals to demonstrate judgement and problem-solving skills in managing own work activities and contributing to a productive team environment within the scope of this unit. This includes an understanding of the level of work to be performed.</p> <p>Work is carried out in accordance with award provisions.</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

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

ELEMENT	PERFORMANCE CRITERIA
<p>1. Prepare to undertake measurements</p>	<p>1.1. Nature and scope of work requirements are identified and confirmed</p> <p>1.2. OH&S requirements, including individual State/Territory regulatory requirements and personal protection needs are observed throughout the work</p> <p>1.3. Procedures and information such as workshop manuals, specifications, and tooling required, are sourced</p> <p>1.4. Methods appropriate to the circumstances are selected and prepared in accordance with standard operating procedures</p> <p>1.5. Resources required for measuring are sourced and support equipment is identified and prepared</p> <p>1.6. Warnings in relation to working with precision tooling are observed</p>
<p>2. Conduct measurements and analyse results</p>	<p>2.1. Measurement is implemented in accordance with workplace procedures and manufacturer/ component supplier specifications</p> <p>2.2. Measurement results are compared with manufacturer/ component supplier specifications to indicate compliance or non-compliance</p> <p>2.3. Results are documented with evidence and supporting information and recommendation(s) made</p> <p>2.4. Report is processed in accordance with workplace procedures</p>
<p>3. Maintain measuring equipment</p>	<p>3.1. Information required for maintenance is accessed from manufacturer/component supplier specifications and correctly interpreted</p> <p>3.2. Routine maintenance and storage of measuring equipment is carried out in accordance with manufacturer/component supplier specifications</p> <p>3.3. Checks are completed without causing damage to any component or system</p> <p>3.4. Workplace documents are processed in accordance with workplace procedures</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- apply research and interpretive skills sufficient to locate, interpret and apply manufacturer/component supplier procedures, workplace policies and procedures
- apply analytical skills required for identification and analysis of technical information
- apply plain English literacy and communication skills in relation to dealing with customers and team members
- apply questioning and active listening skills for example when obtaining information from customers
- apply oral communication skills sufficient to convey information and concepts to customers
- apply planning and organising skills to own work activities, including making good use of time and resources, sorting out priorities and monitoring one's own performance
- interact effectively with other persons both on a one-to-one basis and in groups, including understanding and responding to the needs of a customer and working effectively as a member of a team to achieve a shared goal
- establish safe and effective work processes which anticipate and/or resolve problems and downtime, to systematically develop solutions to avoid or minimise reworking and avoid wastage
- use mathematical ideas and techniques to correctly calculate time, assess tolerances, apply accurate measurements, calculate material requirements and establish quality checks
- use workplace technology related to the use and maintenance of measuring equipment, including the use of measuring equipment, computerised technology and communication devices and the reporting/documenting of results

Required knowledge

A working knowledge of:

- OH&S regulations/requirements, equipment, material and personal safety requirements
- common automotive measurement terminology
- types of non-specialist measuring equipment and their applications
- measurement procedures
- measuring equipment maintenance procedures
- enterprise quality procedures
- work organisation and planning processes

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, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>It is essential that competence in this unit signifies ability to transfer competence to changing circumstances and to respond to unusual circumstances in the critical aspects of:</p> <ul style="list-style-type: none"> • observing safety procedures and requirements • communicating effectively with others involved in or affected by the work • selecting methods and techniques appropriate to the circumstances • completing preparatory activity in a systematic manner • measuring dimensions or variables using the instruments listed in the Range Statement • maintaining measuring equipment • conducting measurement in accordance with workplace requirements • accurately interpreting measurements <p>completing measurements within workplace timeframes</p>
Context of, and specific resources for assessment	<p>Application of competence is to be assessed in the workplace or simulated worksite</p> <p>Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints</p> <p>Assessment is to comply with regulatory requirements, including Australian Standards</p> <p>The following resources should be made available:</p> <ul style="list-style-type: none"> • workplace location or simulated workplace • material relevant to the use and maintenance of measuring equipment • equipment, hand and power tooling appropriate to the use and maintenance of measuring equipment • activities covering mandatory task requirements • specifications and work instructions
Method of assessment	Assessment must satisfy the endorsed assessment guidelines of the automotive industry's RS&R Training Package

EVIDENCE GUIDE	
	<p>Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge</p> <p>Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies</p> <p>Assessment may be applied under project related conditions and require evidence of process</p> <p>Assessment must confirm a reasonable inference that competence is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances</p> <p>It is preferable that assessment reflects a process rather than an event and occurs over a period of time to cover varying quality circumstances. Evidence of performance may be provided by customers, team leaders/members or other persons subject to agreed authentication arrangements</p> <p>Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role</p>
Guidance information for assessment	

Range Statement

RANGE STATEMENT	
<p>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, if used in the performance criteria, is detailed below. 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) may also be included.</p>	
Measuring equipment	<p>Measuring equipment is to include inside/outside micrometers, vernier callipers, dial gauges, depth gauges, steel rulers, T-squares, straight edges, callipers, dividers, protractors, feeler gauges, ohm meters, volt meters, amp meters (AVR and</p>

RANGE STATEMENT	
	multi-meters), thermometers, pressure gauges
OH&S	OH&S requirements are to be in accordance with legislation/regulations/codes of practice and enterprise safety policies and procedures. This may include protective clothing and equipment, use of tooling and equipment, workplace environment and safety, handling of material, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances
Personal protective equipment	Personal protective equipment is to include that prescribed under legislation/regulations/codes of practice and workplace policies and practices
Safe operating procedures	Safe operating procedures are to include, but are not limited to the conduct of operational risk assessment and treatments associated with vehicular movement, hazardous substances, electrical safety, machinery movement, manual lifting and shifting, working in proximity to others and site visitors
Emergency procedures	Emergency procedures related to this unit are to include, but are not limited to operating safely in the event of fires, enterprise first aid requirements and site evacuation
Quality requirements	Quality requirements are to include, but are not limited to regulations, including Australian Standards, internal company quality policy and standards and enterprise operations and procedures
Statutory/regulatory authorities	Statutory/regulatory authorities may include Federal, State/Territory and local authorities administering acts, regulations and codes of practice
Communications	Communications are to include, but are not limited to verbal and visual instructions and fault reporting and may include site specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers

RANGE STATEMENT	
Information/documents	<p>Sources of information/documents may include:</p> <ul style="list-style-type: none"> • verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets, diagrams or sketches • safe work procedures related to the use and maintenance of measuring equipment • regulatory/legislative requirements pertaining to the automotive industry, including Australian Design Rules • organisation work specifications and requirements • instructions issued by authorised enterprise or external persons • Australian Standards

Unit Sector(s)

Unit sector	Technical
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Co-requisite units

Co-requisite units	

Competency field

Competency field	
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