



Australian Government

AURVTN3029 Set up and operate universal measuring systems

Release 1

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Modification History

Release	Comment
Release 1	New unit of competency

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes required to measure vehicle chassis misalignment, and set up and use a universal measuring system for vehicle chassis and body component repairs. The operator will be able to set up, operate and obtain measurements at pre- and post-repair intervals. The unit involves identifying and confirming work requirements and preparing for work. Licensing, legislative, regulatory or certification requirements may apply to this unit in some jurisdictions. Users are advised to check with the relevant regulatory authority.
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Application of the Unit

Application of the unit	Work applies to measuring vehicle upper and under-body in three dimensions. It involves the application of skills and knowledge required in using the measuring equipment, including clean-up and documentation at a body repair technician level. Work requires individuals to demonstrate judgement and problem-solving skills in managing own work activities and contributing to a productive team environment. Work is carried out according to original equipment manufacturer (OEM) specifications and recommended procedures, and industry codes of practice. Vehicles may include passenger vehicles, heavy vehicle trucks, buses and commercial vehicles.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

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 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.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine job requirements	1.1.Job specifications and requirements are interpreted and determined from job sheets and work instructions 1.2.Appropriate workplace health and safety (WHS) practices are identified according to WHS, legislative and workplace requirements 1.3.Measurement equipment information is interpreted for correct set-up and operation 1.4.Vehicle chassis specifications are obtained from OEM or other recognised industry agencies
2. Plan and prepare work	2.1.OEM processes and specifications are read and incorporated into the development of a repair plan 2.2.Vehicle specifications and recommended repair procedures are sourced using the internet or repair manuals 2.3.Equipment and resources are checked for OEM compliance 2.4.Relevant set-up procedures, repair plans, drawings and reference texts are followed according to job instructions 2.5.Work is planned to include equipment set-up and operation to specifications and workplace procedures 2.6.Work area is prepared according to WHS, legislative and workplace requirements 2.7.Potential hazards are identified and prevention measures selected according to workplace procedures
3. Conduct work	3.1.Equipment set-up activities are completed without causing damage to workplace property, vehicles, systems or components 3.2.Measuring system is secured and adjusted to vehicle according to equipment manufacturer recommended procedures 3.3.Vehicle measurements are taken in three dimensions and repairs are carried out according to OEM procedures and workplace quality procedures
4. Clean up work area and maintain equipment	4.1.Waste and scrap are removed following workplace and environmental requirements and procedures 4.2.Equipment and work area are cleaned and inspected for serviceable condition according to workplace procedures 4.3.Faulty equipment is identified and tagged according to workplace policy 4.4.Maintenance activities are completed according to manufacturer and component specifications and workplace procedures

	4.5.Measuring equipment is maintained and stored according to workplace procedures
5. Finalise measurement processes	5.1.Pre- and post-repair measurement readings that comply with OEM specifications, industry and workplace standards are recorded 5.2.Vehicle dimensions are recorded for customer, insurance and workplace evidence 5.3.Work completion details are finalised according to workplace procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- communication skills to follow workplace verbal instructions
- initiative and enterprise skills to recognise a workplace problem or potential problem and take action
- learning skills to identify sources of information, assistance and expert knowledge to expand skills and understanding
- literacy skills to:
 - read and follow information in written job instructions, specifications, standard operating procedures, charts, lists, drawings and other reference documents
 - obtain and record vehicle specifications and repair procedures
 - document pre- and post-vehicle measuring results
- numeracy skills to interpret, calculate vehicle measuring equipment
- planning and organising skills to:
 - plan measuring equipment set-up
 - plan own work requirements and prioritise actions to achieve required outcomes and ensure tasks are completed on time
 - identify risk factors and take action to minimise them
- problem-solving skills to:
 - refer problems outside area of responsibility to appropriate person
 - seek information and assistance as required to solve problems
- self-management skills to:
 - select and use appropriate universal measuring equipment and tools
 - recognise own limitations and seek advice
 - follow workplace policies and documentation, such as industry codes of practice and procedures
- technical skills to:
 - use workplace tools and equipment relating to the set-up and operation of universal measuring systems
 - use universal measuring equipment correctly
- teamwork skills to apply knowledge of own role to complete activities efficiently to support team activities and tasks

Required knowledge

- relevant workplace health and safety and environmental regulations and workplace policies and procedures
- workplace technical documentation covering procedures, specifications, schedules and work plans or equivalent

REQUIRED SKILLS AND KNOWLEDGE

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

- workplace quality system documentation covering instructions, procedures, performance indicators and review processes or equivalent
- environmental protection requirements relating to the disposal of waste material
- established communication channels and protocols
- problem-identification and resolution techniques
- procedures for operating universal measuring equipment
- universal measuring equipment safety requirements

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 the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy all of the requirements of the performance criteria and required skills and knowledge.

A person who demonstrates competency in this unit must be able to:

- comply with relevant legislation, regulations, standards, codes of practice and established safe practices and workplace policies and procedures for managing personal work priorities
- maintain working knowledge of current work systems and practices
- apply, within scope of own role, the requirements of the job or work role:
 - set up and operate universal measuring systems
 - measure upper and under-body
 - measure three dimensions
 - measure diamond and twist damage
 - effectively apply problem-solving techniques
- interpret and communicate equipment operational information
- employ safe work practices
- conduct pre- and post-vehicle measuring processes
- use universal measuring system and relevant tools and equipment.

Context of, and specific resources for assessment

Competency is to be assessed in the workplace or a simulated workplace environment that accurately reflects performance in a real workplace setting.

Assessment is to occur:

- using standard workplace practices and procedures
- following safety requirements
- applying environmental constraints.

Assessment is to comply with relevant:

- regulatory requirements
- Australian standards

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 the Training Package.

Overview of assessment

- industry codes of practice.
- The following resources must be made available for the assessment of this unit:
- safe work environment
 - OEM specification
 - universal measuring equipment
 - workplace or simulated measuring activity
 - hand tools.

Method of assessment

Assessment must satisfy the endorsed Assessment Guidelines of this Training Package.

Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with the application of required skills and knowledge.

Assessment methods must be by direct observation of tasks and include questioning on required skills and knowledge to ensure correct interpretation and application.

Competence in this unit may be assessed in conjunction with other units which together form part of a holistic work role.

Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate the needs of diverse clients.

Assessment processes and techniques must be culturally sensitive and appropriate to the language, literacy and numeracy capacity of the candidate and the work being performed.

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. 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.

Workplace health and safety requirements may include:

- legislation and regulations
- workplace safety policies and procedures
- use of personal protective equipment and clothing
- use of fire-fighting equipment
- first aid equipment
- hazard and risk control and elimination
- systems covering the use of hazardous materials and substances
- manual-handling procedures, including for lifting and carrying.

Legislative requirements may include:

- applicable legislation and regulations, including those relating to:
 - award and enterprise agreements
 - duty of care
 - employee relations
 - environment protection
 - industrial relations.

Workplace requirements may include:

- environmental management: waste disposal, recycling and re-use guidelines
- emergency and evacuation procedures
- legal obligations
- maintenance and storage procedures
- WHS requirements
- policies and procedures relating to own role and responsibility
- procedures for using universal measuring equipment
- instruction manuals
- quality assurance guidelines
- quality and continuous improvement processes and standards
- recording and reporting guidelines.

Information may include:

- OEM-recommended repair specifications
- workplace operating procedures
- customer requirements
- industry codes of practice
- legislation.

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Resources may include:

- measuring equipment set-up specifications
- hand tools
- identification of OEM chassis attachment points
- job sheets
- overhead measuring system
- laser measuring system
- trammel bar
- parallel gauges
- mechanical measuring system
- computer-aided measuring system
- tape measure
- working drawings
- work instructions
- workplace supervisor or trainer
- workplace or simulated workplace.

Standards may include:

- industry regulations and guidelines
- OEM repair guidelines
- OEM vehicle specifications
- industry codes of practice
- WHS legislation
- workplace quality procedures.

Unit Sector(s)

Competency field	Vehicle Body
Unit sector	Technical – Body

Custom Content Section

Not applicable.