



Australian Government

Department of Education, Employment and Workplace Relations

AURV224508A Carry out fabrication of components

Release: 1

AURV224508A Carry out fabrication of components

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit of competency covers the skills and knowledge required to measure, mark out and carry out fabrication of basic components.
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Application of the Unit

Application of the unit	<p>The unit includes identification and confirmation of work requirements, preparation for work, selection of material, fabrication of components to specifications, and completion of work finalisation processes, including clean-up and documentation.</p> <p>This unit covers only fabrication of basic or straightforward components.</p> <p>Work requires individuals to demonstrate judgement and problem-solving skills in managing own work activities and contributing to a productive team environment.</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
1. Prepare for work	1.1. Work instructions are used to determine job requirements, including job sheets, quality and quantity of materials. 1.2. Job specifications are read and interpreted. 1.3. Occupational health and safety (OHS) requirements, including personal protection needs, are observed throughout the work. 1.4. Materials are selected and inspected for quality. 1.5. Hand, power tooling and safety equipment are identified and checked for safe use.
2. Perform basic fabrication	2.1. Information is accessed and interpreted from manufacturer/component supplier specifications. 2.2. Suitable materials are selected and components/equipment fabricated to specific requirements. 2.3. Procedures for set-up are followed in accordance with plan, customer requirements and specifications. 2.4. Tooling, equipment and material are located on worksite and confirmed for commencement of production in accordance with enterprise established procedures. 2.5. Work plan is followed to commence fabrication.
3. Monitor fabrication process and outputs	3.1. Key characteristics are monitored to ensure conformity to specifications during fabrication process. 3.2. Fabrication is checked for conformity to specification. 3.3. Product is tagged and stored and safely for future use. 3.4. Fabrication operations are carried out according to industry regulations/guideline, OHS requirements, legislation and enterprise procedures/policies.
4. Clean up work area and Maintain equipment	4.1. Material that can be reused is collected and stored. 4.2. Waste and scrap is removed following workplace procedures. 4.3. Equipment and work area are cleaned and inspected for serviceable conditions in accordance with workplace procedures. 4.4. Unserviceable equipment is tagged and faults identified in accordance with workplace procedures.

ELEMENT	PERFORMANCE CRITERIA
	<p>4.5. Operator maintenance is completed in accordance with manufacturer/component supplier specifications and worksite procedures.</p> <p>4.6. Tooling is maintained 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

Required skills include:

- collect, organise and understand information related to work orders, plans and safety procedures for fabricating a component
- communicate ideas and information to enable confirmation of work requirements and specifications, coordination of work with worksite supervisor, other workers and customers, and reporting of work outcomes and problems
- plan and organise activities, including preparation and layout of worksite and obtaining of equipment and material to avoid backtracking, workflow interruptions or wastage
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise workflow and productivity
- use mathematical ideas and techniques to complete measurements and estimate material requirements required for the work
- use pre-checking and inspection techniques to anticipate planning and scheduling problems, avoid wastage of line and material
- use workplace technology related to fabrication of components, including use of specialist tooling, measuring equipment, use of communication devices and reporting/documenting of results

Required knowledge

Required knowledge includes:

- OHS regulations/requirements, equipment, material and personal safety requirements
- equipment maintenance procedures
- vehicle/material safety requirements
- manufacturer/component supplier/company policies

REQUIRED SKILLS AND KNOWLEDGE

- types of fabrication materials and their application
- fabrication procedures/marking out and cutting procedures
- methods of fastening/gluing/bonding
- planning of fabrication, processes and techniques
- workplace guidelines regarding acceptable tolerance levels
- procedures for reporting faults and material defects
- enterprise quality procedures
- work organisation and planning processes

Evidence Guide

EVIDENCE GUIDE	
<p>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.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>It is essential that competence is fully observed and there is ability to transfer competence to changing circumstances and to respond to unusual situations in 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 circumstances • completing preparatory activity in a systematic manner • selecting material used in the work process • identifying, setting up, operating and maintaining equipment to complete a range of component fabrication tasks • conducting operator maintenance on welding, bending, lifting and measuring equipment.
Context of, and specific resources for assessment	<ul style="list-style-type: none"> • Application of competence is to be assessed in the workplace or simulated worksite. • Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints. • Assessment is to comply with regulatory requirements, including Australian standards. • The following resources should be made available: <ul style="list-style-type: none"> • workplace location or simulated workplace • materials relevant to fabrication of components • equipment, hand and power tooling appropriate to fabrication of components • activities covering mandatory task requirements • specifications and work instructions.
Method of assessment	<ul style="list-style-type: none"> • Assessment must satisfy endorsed Assessment Guidelines of the AUR05 Automotive Industry Retail, Service and Repair Training Package. • Assessment methods must confirm consistency and accuracy of performance together with application of

EVIDENCE GUIDE	
	<p>underpinning knowledge.</p> <ul style="list-style-type: none"> • Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce integration of key competencies. • Assessment may be applied under project-related conditions and require evidence of process. • 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. • 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. • Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role.
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>	
Fabrication methods	<p>Fabrication methods are to include:</p> <ul style="list-style-type: none"> • welding, heating, soldering, measuring, mechanical fastening, cutting, shaping, bending, bonding, gluing, marking and assembling
OHS	<p>OHS requirements are to be in accordance with legislation/regulations/codes of practice and enterprise safety policies and procedures. This</p>

RANGE STATEMENT	
	<p>may include:</p> <ul style="list-style-type: none"> • protective clothing and equipment • use of tooling and equipment • workplace environment and safety • handling of material • use of firefighting equipment • enterprise first aid • hazard control and hazardous material and substances
Personal protective equipment	Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices
Safe operating procedures	<p>Safe operating procedures are to include, but are not limited to:</p> <ul style="list-style-type: none"> • conduct of operational risk assessment and treatments associated with vehicular movement, toxic substances, electrical safety, machinery movement and operation, manual and mechanical lifting and shifting, working in proximity to others and worksite visitors
Emergency procedures	<p>Emergency procedures related to this unit are to include, but are not limited to:</p> <ul style="list-style-type: none"> • emergency shutdown and stopping of equipment • extinguishing fires • enterprise first aid requirements • worksite evacuation
Environmental requirements	<p>Environmental requirements are to include, but are not limited to:</p> <ul style="list-style-type: none"> • waste management, noise, dust and clean-up management
Quality requirements	<p>Quality requirements are to include, but are not limited to:</p> <ul style="list-style-type: none"> • regulations, including Australian standards, internal company quality policy and standards and enterprise operations and procedures
Statutory/regulatory authorities	<p>Statutory/regulatory authorities may include:</p> <ul style="list-style-type: none"> • federal, state/territory and local authorities

RANGE STATEMENT	
	administering applicable Acts, regulations and codes of practice
Tooling and equipment	<p>Tooling and equipment are to include:</p> <ul style="list-style-type: none"> hand tooling, power tooling, welding equipment, cutting equipment, measuring equipment, marking out equipment, lifting and bending equipment
Materials	Materials may include sheet metal, bonding material, steel, paints, plastics and cleaning materials.
Communications	<p>Communications are to include, but are not limited to:</p> <ul style="list-style-type: none"> verbal and visual instructions and fault reporting and may include worksite specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers
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 (MSDS), diagrams or sketches safe work procedures related to fabrication of basic components regulatory/legislative requirements pertaining to automotive industry, including Australian Design Rules engineer's design specifications and instructions organisation work specifications and requirements instructions issued by authorised enterprise or external persons Australian standards

Unit Sector(s)

Unit sector	Vehicle body
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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