



Australian Government

Department of Education, Employment and Workplace Relations

AUMGTS3001 Prepare materials for fabrication using jigs and fixtures

Release: 1

AUMGTS3001 Prepare materials for fabrication using jigs and fixtures

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the application of the required skills and knowledge to interpret the drawings/specifications/materials list, selecting, marking out and loading materials for fabrication using jigs/fixtures. No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.
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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 at a production worker level. These skills and knowledge are to be used within the scope of the person's job and authority.
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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. Select and mark out materials	1.1. Drawings/specifications/materials lists are read and interpreted 1.2. Correct materials for job are selected 1.3. Appropriate transport equipment is operated according to organisation procedures 1.4. Defective materials are set aside for scrap, return or rework 1.5. Job is marked out according to relevant drawing and appropriate final finish is considered
2. Load/unload material onto jig/fixture	2.1. Appropriate lifting gear is selected and used 2.2. Material/parts are securely fixed to prevent movement and inaccurate specifications 2.3. Materials/parts are loaded and unloaded in accordance with OHS requirements
3. Bend/shape material for fabrication	3.1. Appropriate tools and resources are selected and used 3.2. Bend/shape processes are employed according to manufacturer and organisation procedures 3.3. Bent/shaped material is checked against job specification 3.4. Bending/shaping processes are completed in accordance with organisation OHS procedures
4. Record workflow and production schedules	4.1. Workflow and production schedules are recorded using the appropriate paper work 4.2. Workflow and production schedules are completed and maintained to ensure production targets are achieved 4.3. Deviations to work flow and production schedules are recorded and reported to the appropriate personnel

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 report deviations in work flow to appropriate personnel
- apply teamwork to a range of situations, including the loading and unloading of materials
- 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 ensure workflow and production schedules are completed accurately
- 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 regulations and enterprise policies and procedures needed to carry out work in a manner which ensures the safety of people, equipment and the environment. The specific regulations will vary according to the area of operation
- organisation technical work documentation covering procedures, specifications, schedules and work plans or equivalent
- organisation quality system documentation covering instructions, procedures, performance indicators and review processes or equivalent.

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 legislative, regulations, standards, codes of practice and establish safe practices and enterprise policies and procedures for managing personal work priorities
- maintaining a working knowledge of current work systems and practices
- working and communicating effectively and positively with others involved in the work
- applying, within authority, the requirements of the job or work role in relation to:
 - achieving production goals
 - achieving work quality goals
 - responding positively to changing work requirements
 - contributing effectively to cost reduction initiatives
 - effectively applying problem solving techniques
- modify activities to cater for variations in workplace context and environment
- interpret drawings/specifications/materials lists
- identify materials
- mark out materials
- fixing of materials in jig / fixtures for fabrication
- produce work flow records - written / electronic
- apply organisation OHS policy and procedures
- maintain an effective, clean and safe work site
- apply manual handling techniques.

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

EVIDENCE GUIDE

this unit:

- assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace 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 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 procedures 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.

Final finish may include:

- seams
- blemishes.

OHS requirements may include:

Legislation and regulations, organisational safety policies and procedures and may include: the use of personal protective equipment and clothing, rescue services, fire fighting organisation and equipment, first aid equipment, hazard and risk control and elimination, systems covering the use of hazardous materials and substances and manual handling procedures including lifting and carrying.

Resources may include:

- materials - aluminum, mild steel, bissaloy, stainless steel, preformed parts
- securing processes - bolts, clamps, metal pins
- transport equipment - use of cranes, hoists, tow motors and trolleys
- jigs/fixtures
- company documents to be completed - paper based / electronic
- production drawings / specifications / materials lists
- qualified workplace assessor
- workplace or simulated workplace.

RANGE STATEMENT

Appropriate personnel may include:

- clients and managers
- supervisors
- suppliers
- team leaders
- team members.

Unit Sector(s)

Unit sector	Technical - Fabrication
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Competency field

Competency field	Manufacturing - Bus, Truck and Trailer
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Co-requisite units

Not applicable.