



Australian Government

Department of Education, Employment and Workplace Relations

MEA304C Remove and install non-pressurised aircraft structural and non-structural components

Release: 1

MEA304C Remove and install non-pressurised aircraft structural and non-structural components

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit is part of the Mechanical Certificate IV AME training pathway. It may also be part of a Structures Maintenance Certificate IV training pathway. This unit covers the competencies required for the removal and installation of both structural and non-structural components of non-pressurised fixed and rotary wing aircraft. Where a CASA licensing outcome is sought this unit forms part of the CASA requirement for the granting of the chosen Aircraft Maintenance Engineer Licence under CASR Part 66, in accordance with the licensing provisions in Section 3, Assessment Guidelines.
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Application of the Unit

Application of the unit	This unit requires application of hand skills and maintenance publications to remove and install structural and non-structural components from non-pressurised aircraft. Applications include both fixed and rotary wing aircraft.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
	MEA302C Remove and install aircraft hydro-mechanical and landing gear system components

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. Remove components	<p>1.1. Structure is supported and prepared in accordance with the applicable maintenance manual to ensure personnel safety and freedom from damage to aircraft or component during <i>component</i> removal.</p> <p>1.2. Component removal is carried out in accordance with the applicable maintenance manual.</p> <p>1.3. Required maintenance documentation is completed and processed in accordance with standard enterprise procedures.</p> <p>1.4. Where applicable, removed components are tagged and prepared for transport in accordance with specified procedures.</p>
2. Install components.	<p>2.1. Structural and/or non-structural components to be installed are checked to confirm correct part numbers, serviceability and modification status.</p> <p>2.2. Component installation is carried out in accordance with the applicable maintenance manual.</p> <p>2.3. Support/safety equipment is removed at an appropriate time to ensure personnel safety and freedom from structural damage.</p> <p>2.4. Required maintenance documentation is completed and processed in accordance with standard enterprise procedures.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Look for evidence that confirms skills in:

- Application of relevant occupational health and safety (OHS) practices including the use of Material Safety Data Sheets (MSDS) and personal protective equipment (PPE)
- The use of relevant maintenance documentation and aircraft manuals to:
 - remove and install structural and non-structural components
 - remove and install aircraft interior fittings
 - remove and install doors, door seals, windows and transparent panels
 - checking and adjusting all doors and access panels including locking mechanisms
 - remove and install emergency equipment.

Required knowledge

Look for evidence that confirms knowledge of:

- Structural and non-structural component methods of construction and attachment, faying surface treatment and fuel tank sealing
- Non-pressurised fuselage aircraft doors, related seals and window and transparent panel construction, attachment methods and sealing
- Aircraft interior fittings (trim, linings, seats, floor panels, and so on) construction and attachment methods
- The location and attachment or stowage methods for emergency equipment
- Relevant OHS practices
- How to obtain MSDS
- Use of PPE
- Relevant maintenance manuals
- Relevant regulatory requirements and standard procedures

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>	
<p>Overview of assessment</p>	<p>A person who demonstrates competency in this unit must be able to use maintenance manuals and applicable tools to remove and install removable structural and non-structural components from non-pressurised aircraft while observing all relevant safety precautions.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>The underlying skills inherent in this unit should be transferable into other units that require similar techniques. It is essential that shoring, trestling and lifting requirements and safety precautions applicable to the structure being maintained are fully observed, understood and complied with.</p> <p>Evidence of transferability of skills and knowledge related to removal and installation is essential. This may be demonstrated through application across a representative range of the areas listed in the Range Statement. An understanding of component handling, attachment methods, adjustment and sealing as it relates to the work must be demonstrated before undertaking any action. The work plan should take account of applicable safety and quality requirements in accordance with the industry and regulatory standards.</p> <p>A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements of the Unit of Competency are being achieved under routine supervision on at least one item from each Group 1 to 6, as listed in the Range Statement. This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry .</p>
<p>Context of and specific resources for assessment</p>	<p>Competency should be assessed in the work environment or simulated work environment using tools and equipment specified in maintenance manuals. It is also expected that general-purpose tools, test and ground support equipment found in most routine situations would be used where appropriate.</p>
<p>Method of assessment</p>	

EVIDENCE GUIDE	
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>	
Note	<p>Range statements listed below are numbered to facilitate specification of the assessment requirements included in the Evidence Guide.</p>
Removable components of structure	<p>Are those that are installed using bolts and/or screws. Where component removal and installation requires the removal and installation of rivets the applicable unit is either: MEA311B, 339A or MEA404B.</p> <p><i>Components may include:</i></p> <ol style="list-style-type: none"> 1. Removable components of wings, tail booms, pylons, empennage, skids, fairings, nacelles 2. Removable components or sections of non-pressurised fuselages 3. Non-pressurised fuselage entry, cargo, access doors and associated seals (including checking and adjustment of all doors and access panels and associated locking mechanisms) 4. Non-pressurised fuselage windows and transparent panels 5. Where applicable, trim panels, linings, seats, cabin equipment and consoles, floor panels, coverings 6. Applicable emergency equipment (including passenger escape systems, life jackets, rafts, location transmitters, beacons, crew and passenger seat restraints)
Sealant removal and application	<p>The removal and application of faying (contact or overlapping) surface and fuel tank sealants is included, where applicable</p>
Application	<p>Application of this unit may relate to:</p> <ul style="list-style-type: none"> • Scheduled or unscheduled maintenance activities • Individual or team related activities

RANGE STATEMENT	
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Procedures and requirements	Refer to industry standard procedures specified by manufacturers, regulatory authorities or the enterprise
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Unit Sector(s)

Unit sector	
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Competency field

Competency field	Aviation maintenance
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Co-requisite units

Co-requisite units	