



Australian Government

MEA304 Remove and install non-pressurised aircraft structural and non-structural components

Release: 2

MEA304 Remove and install non-pressurised aircraft structural and non-structural components

Modification History

Release 2. Equivalent to MEA304 Remove and install non-pressurised aircraft structural and non-structural components with amended prerequisite codes.

Application

This unit of competency requires application of hand skills and maintenance publications to remove and install structural and non-structural components from non-pressurised fixed and rotary wing aircraft during scheduled and unscheduled maintenance. Work may be performed individually or as part of a team.

The unit is part of the Mechanical Certificate IV (Aircraft Maintenance Stream) training pathway. It may also be part of a Structures Maintenance Certificate IV training pathway.

The unit is used in workplaces that operate under the airworthiness regulatory systems of the Australian Defence Force (ADF) and the Civil Aviation safety Authority (CASA).

Where a CASA licensing outcome is sought this unit forms part of the CASA requirement for the granting of the chosen maintenance certification licence under Civil Aviation Safety Regulation (CASR) Part 66, in accordance with the licensing provisions in the Companion Volume Implementation Guide.

Pre-requisite Unit

MEA398	Remove and install aircraft hydro-mechanical and landing gear system components
--------	---

Competency Field

Aviation maintenance

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Remove components	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 component removal
- 1.2 Component removal is carried out in accordance with the applicable maintenance manual while observing all relevant work health and safety (WHS) requirements, including the use of material safety data sheets (MSDS) and items of personal protective equipment (PPE)
 - 1.3 Required maintenance documentation is completed and processed in accordance with standard enterprise procedures
 - 1.4 Where applicable, removed components are tagged and prepared for transport in accordance with specified procedures
2. Install components
- 2.1 Structural and/or non-structural components to be installed are checked to confirm correct part numbers, serviceability and modification status
 - 2.2 Component installation is carried out in accordance with the applicable maintenance manual while observing all relevant WHS requirements, including the use of MSDS and items of PPE
 - 2.3 Support/safety equipment is removed at an appropriate time to ensure personnel safety and freedom from structural damage
 - 2.4 Required maintenance documentation is completed and processed in accordance with standard enterprise procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Removable components of structure include:

- 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 MEA339 Inspect, repair and maintain aircraft structures, MEA369 Inspect and maintain structures and related components of non-pressurised small aircraft or MEA371 Perform major repairs and modifications to small aircraft metal structure.
- Removable components include:
 - removable components of wings, tail booms, pylons, empennage, skids, fairings and nacelles
 - removable components or sections of non-pressurised fuselages
 - non-pressurised fuselage entry, cargo, access doors and associated seals, including checking and adjustment of all doors and access panels and associated locking mechanisms
 - non-pressurised fuselage windows and transparent panels
 - where applicable, trim panels, linings, seats, cabin equipment and consoles, floor panels and coverings
 - applicable emergency equipment, including passenger escape systems, life jackets, rafts, location transmitters, beacons, crew and passenger seat restraints

Sealant removal and application includes:

- The removal and application of faying (contact or overlapping) surface and fuel tank sealants is included, where applicable

Procedures and requirements include:

- Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

Unit Mapping Information

Release 2. Equivalent to MEA304 Remove and install non-pressurised aircraft structural and non-structural components

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371>

Assessment Requirements for MEA304 Remove and install non-pressurised aircraft structural and non-structural components

Modification History

Release 2. Equivalent to MEA304 Remove and install non-pressurised aircraft structural and non-structural components with amended prerequisite codes.

Performance Evidence

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria under the specified conditions of assessment, and include:

- applying relevant WHS practices, including the use of MSDS and PPE
- using 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
- removing and installing emergency equipment.

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.

Evidence of transferability of skills and knowledge related to removal and installation is essential. This may be demonstrated through application across the component groups listed in the Assessment Conditions.

Knowledge Evidence

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include 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 WHS practices
- how to obtain MSDS
- use of PPE
- relevant maintenance manuals

- relevant regulatory requirements and standard procedures.

Assessment Conditions

- 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.
- 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.
- The following conditions of assessment represent the requirements of the Regulators (ADF and CASA) and maintenance stakeholders and must be rigorously observed.
- A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements and performance criteria of the unit of competency are being achieved under routine supervision on at least one (1) item from each of the following component groups:
 - removable components of wings, tail booms, pylons, empennage, skids, fairings and nacelles
 - removable components or sections of non-pressurised fuselages
 - non-pressurised fuselage entry, cargo, access doors and associated seals, including checking and adjustment of all doors and access panels and associated locking mechanisms
 - non-pressurised fuselage windows and transparent panels
 - where applicable, trim panels, linings, seats, cabin equipment and consoles, floor panels and coverings
 - applicable emergency equipment, including passenger escape systems, life jackets, rafts, location transmitters, beacons, crew and passenger seat restraints.
- This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide (for details refer to the Companion Volume Assessment Guidelines).
- Assessors must satisfy the requirements of the National Vocational Education and Training Regulator (Australian Skills Quality Authority, or its successors).
- Where the unit is to be used for CASA licensing purposes the Assessor must also meet the criteria specified in the CASR Part 147 Manual of Standards.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371>