



**Australian Government**

# **MEA370 Repair the structure of non-pressurised small aircraft**

**Release: 1**

# MEA370 Repair the structure of non-pressurised small aircraft

## Modification History

Release 1 - New unit of competency

## Application

This unit of competency requires application of procedures and techniques associated with the repair of non-pressurised small aircraft structure during scheduled or unscheduled maintenance. Work may be performed individually or as part of a team and involves the performance of a limited range of metal and composite repairs. Where extensive repair involving the replacement of major structural components, such as wing spars and fuselage frames, is required the applicable unit is MEA371 Perform major repairs and modifications to small aircraft metal structure.

The unit is part of the Aeroskills Mechatronics Certificates III and IV small aircraft maintenance training pathways.

Where a Civil Aviation Safety Authority (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

MEA369 Inspect and maintain structures and related components of non-pressurised small aircraft

## 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. | Prepare to undertake repair | 1.1 | Extent of damage is correctly assessed to assist in determining repair procedure |
|    |                             | 1.2 | Appropriate repair scheme is identified in accordance                            |

- with structural repair manual and/or approved data
- 1.3 Specialist advice is obtained in establishing an approved repair scheme where a standard repair scheme cannot be identified or damage is out of limits
  - 1.4 All materials and equipment required are organised
2. Repair aircraft structure
- 2.1 Structural repairs are performed in accordance with approved repair scheme ensuring that aircraft standard practices are used and process requirements are carried out 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)
  - 2.2 Preventative maintenance techniques are employed to preserve the integrity of aircraft structure
  - 2.3 Work area is cleaned of all waste material or contaminants
  - 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.

- Damage or defects include:**
- Impact damage
  - Fatigue cracking
  - Corrosion
  - Delamination of composites and bonded structures
- Structural repairs include:**
- Removing corrosion by chemical and mechanical methods
  - Restoring protective coatings

- Applying sealants and jointing compounds
  - Freehand precision hole generation
  - Removing and installing structural hardware and fastening devices
  - Removing and replacing bushes, bearings and bearing surfaces
  - Metal scab patch, flush, splice, lap and formed section repairs
  - Composite external patch, scarf, stepped and bolted repairs
  - Supervisors
  - Specialist structures personnel
- Specialist advice is obtained from:**
- Maintenance documentation includes:**
- Servicing schedules
  - Maintenance manuals
- Procedures and requirements include:**
- Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

## Unit Mapping Information

New unit of competency partially replacing MEA363B Inspect, repair and maintain structures and related components of non-pressurised small aircraft

## Links

Companion Volume implementation guides are found in VETNet -

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