



**Australian Government**

# **MEA425 Perform bolted composite skin repairs**

**Release: 1**

# MEA425 Perform bolted composite skin repairs

## Modification History

Release 1 - New unit of competency

## Application

This unit of competency requires application of hand skills and the use of maintenance publications, applicable materials, tools and methods to repair aircraft composite skin surfaces during scheduled or unscheduled maintenance using bolted repair techniques. Work may involve individual and team-related activities.

Applications include composite skin surfaces from fixed and rotary wing aircraft and aircraft components either on-aircraft or in the workshop.

This unit of competency is part of the Aeroskills Structures Maintenance Certificate IV training pathway, and of the Mechanical Certificate IV (Aircraft Maintenance Stream) training pathways.

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).

## Pre-requisite Unit

MEA401            Inspect aircraft structures

**OR**

MEA339            Inspect, repair and maintain aircraft structures

**OR**

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            Performance criteria describe the performance needed to

- essential outcomes. demonstrate achievement of the element.
1. Plan repair
    - 1.1. Extent of damage is correctly assessed to assist in determining repair procedure
    - 1.2. Structure is supported and prepared in accordance with the applicable maintenance manual to ensure personnel safety and freedom from damage
    - 1.3. Appropriate bolted repair scheme is identified in accordance with structural repair manual and/or approved data
    - 1.4. Specialist advice is obtained in establishing an approved repair scheme where a standard repair scheme cannot be identified or damage criteria are out of limits
    - 1.5. All materials and equipment required are organised
  2. Repair components using bolted patches
    - 2.1. Damage is cleaned up ready for repair 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. Patch material is obtained and patches are fabricated in accordance with the applicable repair scheme
    - 2.3. Repair plug material is obtained and cut to size
    - 2.4. Patches are fitted and secured with fasteners in accordance with the repair scheme while observing all relevant WHS requirements, including the use of MSDS and items of PPE
    - 2.5. Applicable sealant is applied in accordance with the repair scheme
    - 2.6. Surface finish is restored as required
    - 2.7. Required maintenance documentation is completed and processed in accordance with standard enterprise procedures
    - 2.8. Completed assemblies are tagged, sealed or packaged as required

## 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.

- Bolted repairs include:**
- External
  - Internal
  - External/internal
- Procedures and requirements include:**
- Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

## Unit Mapping Information

Release 1 – equivalent to MEA425A Perform bolted composite skin repairs

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371>