



Australian Government

**Assessment Requirements for
MEAMEC0056 Inspect and maintain
structures and related components of
non-pressurised small aircraft**

Release: 1

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Modification History

Release 1. Application changed. Performance Criteria changed. Foundation Skills made explicit. Range of Conditions removed, and relevant information moved to Assessment Requirements. Assessment Requirements clarified. Supersedes and is equivalent to MEA369 Inspect and maintain structures and related components of non-pressurised small aircraft.

Performance Evidence

There must be evidence the candidate has completed all the tasks outlined in the elements and performance criteria of this unit and demonstrated the ability to:

- conduct inspection and testing for each of the following:
 - non-ferrous and ferrous alloys and composite (FRP) materials used in aircraft construction
 - structural fastening and attachment hardware and/or devices
 - seals and sealants
 - glass and moulded plastics
 - preparation for application of non-destructive testing (NDT) techniques
 - doors, hinges and locking mechanisms for damage or misalignment
 - inspections applicable to each of safe life, damage tolerant and fail-safe structure relevant to enterprise
 - ageing aircraft inspection programs
 - inspection after abnormal events
- identify each type of damage:
 - impact damage
 - fatigue cracking
 - corrosion
 - delamination of composites and bonded structures
- carry out one minor elementary maintenance repair task from at least three of the following groups:
 - repair of non-structural fairings, cover plates and cowlings
 - stop drilling of cracks and bonding to acrylic or Perspex windscreens
 - minor repair to fabric surfaces
 - restoration of preservative or protective materials
- carry out one removal and installation task from each of the following 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
- floor panels.
- carry out cleaning procedures to enable structure inspection
- use appropriate hand tools and machines, including riveting equipment, drilling equipment, aligning tools and material fasteners (grip pins)
- apply correct removal, installation and repair techniques for a range of rivets (blind and solid) using hand, squeeze and pneumatic situations
- perform metal, composite or fabric repairs classified as elementary maintenance
- restore aircraft structure sealing and surface finishes
 - check and adjust all doors and access panels, including locking mechanisms
- remove and install emergency equipment.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- work health and safety (WHS) procedures for non-pressurised small aircraft structures, including using personal protective equipment (PPE) and material safety data sheets (MSDSs)
- construction methods and materials used in:
 - fuselage sections
 - wing sections
 - engine nacelles and mounts
 - windows and window frames
 - doors, locks and access panels
- definition of structural terms, including safe life, damage tolerant, failsafe, stress, strain, shear and cycles
- inspection requirements for metal and composite structure, including:
 - ageing aircraft inspection requirements
 - safe life structure
 - damage tolerant structure
 - fail safe structure
 - inspection following abnormal events
- potential causes of structural failure
- NDT methods and application of the various techniques
- methods of construction and assessment of common defects in aircraft plastic transparencies
- basic constructional features and assessment of common defects in glass windscreens

- aircraft fabric coverings and methods for performance of minor repairs (classified as elementary maintenance)
- the various forms of structural corrosion, including the causes and structural effects of corrosion on aircraft
- the terms associated with composite materials and types of composite materials
- non-structural component methods of attachment and faying surface treatment
- non-pressurised fuselage aircraft doors, related seals and window and transparent panel attachment methods and sealing
- aircraft interior fittings (trim, linings, seats and floor panels) construction and attachment methods
- the location and attachment or stowage methods for emergency equipment
- assessment of structural damage:
 - types and classes of mechanical damage
 - types of corrosion and determining the extent of damage
 - relevant documentation and manuals
 - damage limits and repair schemes for metallic and non-metallic structure
- how to perform minor repairs (classified as elementary maintenance) to metal and composite structure
- surface finishes and methods of restoration, including specific WHS and PPE requirements
- how to obtain MSDSs
- maintenance and structural repair manuals for structures and components, including servicing schedules
- regulatory requirements and standard procedures relating to inspection and maintenance of structures and components.

Assessment Conditions

The following conditions of assessment represent the requirements of the regulators Defence Aviation Safety Authority (DASA) and Civil Aviation Safety Authority (CASA) and maintenance stakeholders and must be rigorously observed.

Skills must have been demonstrated under routine supervision in the workplace or in a simulated environment that reflects workplace conditions and contingencies encountered in inspecting and maintaining structures and related components of non-pressurised small aircraft. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - workplace procedures, manufacturing specifications, codes, standards, manuals, and reference materials relevant to inspecting and maintaining structures and related components of non-pressurised small aircraft
 - structures, components, tools and equipment specified in maintenance documentation
 - general-purpose tools and test equipment found in most routine situations.

Evidence of tasks demonstrating competency must be recorded in a log of industrial experience and achievement.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet -

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