



Australian Government

MEA401 Inspect aircraft structures

Release: 2

MEA401 Inspect aircraft structures

Modification History

Release 2. Equivalent to MEA401 Inspect aircraft structures with amended prerequisite codes.

Application

This unit of competency requires application of hand skills and use of maintenance documentation and manuals to inspect aircraft structure and identify damage and deterioration during scheduled or unscheduled maintenance. Work may be performed individually or as part of a team.

Applications include the structure of fixed and rotary wing aircraft.

The unit is part of the Aeroskills Structures Maintenance Certificate IV 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

MEA107	Interpret and use aviation maintenance industry manuals and specifications
MEA154	Apply work health and safety practices in aviation maintenance
MEA155	Plan and organise aviation maintenance work activities
MEA156	Apply quality standards during aviation maintenance activities
MEA157	Complete aviation maintenance industry documentation
MEA158	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance

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.

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|----|----------------------------|-----|---|
| 1. | Inspect aircraft structure | 1.1 | Relevant maintenance documentation and modification status, including defect reports, where relevant, are used to identify specific inspection requirements |
| | | 1.2 | Appropriate preparation and access to the aircraft structure is undertaken to allow for proper inspection in accordance with maintenance documentation 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 | Aircraft structure is visually or physically checked for signs of deformation, defects or damage in accordance with maintenance documentation and approved procedures while observing all relevant WHS requirements, including the use of MSDS and items of PPE |
| | | 1.4 | Damage or defects are assessed against damage or wear limits specified by structural repair manual or other approved data to determine if repair or replacement is required |
| | | 1.5 | 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.

- Preparation and access to structure includes:**
- Preparation for non-destructive testing (NDT) (access to relevant structural zones and components)
- Aircraft structure inspection includes:**
- 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
 - Application of NDT techniques
 - Doors, hinges and locking mechanisms for damage/misalignment
 - Inspections applicable to each of safe life, damage tolerant and fail safe structure relevant to enterprise
 - Ageing aircraft inspection programs
- Inspection techniques include:**
- Visual inspection, physical checks, mensuration and alignment
- Procedures and requirements include:**
- Industry standards specified by manufacturers, regulatory authorities or the enterprise

Unit Mapping Information

Release 2. Equivalent to MEA401 Inspect aircraft structures

Links

Companion Volume implementation guides are found in VETNet -

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