



Australian Government

MEA359 Inspect and repair aircraft wooden structures

Release: 2

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Modification History

Release 2. Equivalent to MEA359 Inspect and repair aircraft wooden structures with amended prerequisite codes.

Application

This unit of competency requires application of woodworking hand skills and knowledge and the use of maintenance publications to inspect and repair aircraft wooden structure and wooden components during the performance of scheduled or unscheduled maintenance. Maintenance may be performed individually or as part of a team.

The unit is part of the Mechanical Certificate IV (Aircraft Maintenance Stream) training pathway.

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

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 wooden 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 and testing in accordance with maintenance documentation |
| | | 1.3 | Aircraft wooden structure is visually or physically checked for signs of deterioration, deformation defects or damage in accordance with maintenance documentation and approved procedures 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) |
| | | 1.4 | 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 |
| 2. | Repair aircraft wooden structure | 2.1 | Extent of deterioration or damage is correctly assessed to assist in determining repair procedure |
| | | 2.2 | Structure is supported and prepared in accordance with the applicable maintenance manual to ensure personal safety and freedom from damage |
| | | 2.3 | Appropriate repair scheme is identified in accordance with structural repair manual and/or approved data |
| | | 2.4 | Specialist advice is obtained in establishing an approved repair scheme where a standard repair scheme cannot be identified or damage is beyond limits |
| | | 2.5 | All materials and equipment required are organised |
| | | 2.6 | 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 WHS requirements, including the use of MSDS and items of PPE
- 2.7 Finishing scheme is restored while observing all relevant WHS requirements, including the use of MSDS and items of PPE
- 2.8 Work area is cleaned of all waste material or contaminants
- 2.9 Components are adjusted, where necessary, to operate within prescribed specifications
- 2.10 Required maintenance/repair documentation is completed and processed in accordance with standard enterprise procedures
- 2.11 Where required, repaired components or assemblies are tagged, sealed and packaged or cradled in accordance with specified 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.

Inspection and testing requirements include:

- Drainage and water and dirt collection points
- Fabric covered plywood surfaces
- Single and double plywood skin
- Structural timbers and bolt holes
- Glued joint strength
- Glue lines

Inspection techniques include:

- Visual inspection
- Physical checks
- Mensuration and alignment

Components to be repaired include:

- Load carrying structural timbers
- Plywood skin

- Spars and ribs.
 - Refinishing of structure after repair using approved finishing scheme
 - Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise
- Finishing scheme includes:**
- Procedures and requirements include:**

Unit Mapping Information

Release 2. Equivalent to MEA359 Inspect and repair aircraft wooden structures

Links

Companion Volume implementation guides are found in VETNet -

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