



Australian Government

MEASTR0003 Modify and repair aircraft non-primary structural sheet metal components

Release: 1

MEASTR0003 Modify and repair aircraft non-primary structural sheet metal components

Modification History

Release 1. Unit code and title changed. Application changed. Elements and 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 MEA406 Repair/modify aircraft non-primary structural sheet metal components.

Application

This unit describes the skills and knowledge required to apply hand skills and use maintenance publications to repair fixed and rotary wing aircraft non-primary structure sheet metal components under the guidance of a supervisor.

Repairs and modifications undertaken are limited to the scope of skills and knowledge included in the unit of competency MEA158 Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance.

The unit is used in workplaces that operate under the airworthiness regulatory systems of the Civil Aviation Safety Authority (CASA) and the Defence Aviation Safety Authority (DASA).

Any other relevant legislation, industry standards and codes of practice within Australia must be applied.

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

Elements and Performance Criteria

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Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

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1. Prepare to perform routine repairs and minor modifications to aircraft non-primary structural sheet metal components	1.1 Determine sheet metal modification or repair scheme in accordance with maintenance documentation, enterprise procedures and guidance from supervisor 1.2 Select and organise all required materials and equipment in accordance with enterprise procedures and maintenance documentation
2. Perform routine repairs and minor modifications to aircraft non-primary structural sheet metal components	2.1 Perform sheet metal repairs in accordance with approved repair scheme, applying aircraft standard practices and following standard process requirements while observing all relevant work health and safety (WHS) requirements, including the use of material safety data sheets (MSDSs) and items of personal protective equipment (PPE) 2.2 Clean waste materials from work area in accordance with standard enterprise procedures 2.3 Make required minor adjustments for components to operate within prescribed specifications and restore sealing and surface finishes with guidance from supervisor
3. Complete routine repair and minor modification activities	3.1 Complete and process required documentation in accordance with enterprise procedures 3.2 Tag, seal and package or cradle repaired components or assemblies in accordance with specified procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

- Reading skills to interpret maintenance manuals and repair schemes.
- Numeracy skills to interpret technical information including sketches and drawings.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEA406 Repair/modify aircraft non-primary structural sheet metal components.

Links

Companion Volume implementation guides are found in VETNet –

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

Assessment Requirements for MEASTR0003 Modify and repair aircraft non-primary structural sheet metal components

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Performance Evidence

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

- repair or modify aircraft non-primary structural sheet metal components during scheduled or unscheduled maintenance under qualified-person guidance on each of the following tasks:
 - removing corrosion by chemical and mechanical methods
 - restoring protective coatings
 - freehand precision hole generation
 - removing and installing fastening devices
 - routine repairs to non-primary structural sheet metal components
- for the components being worked on:
 - identify various aircraft metals used for sheet metal components and their basic metallurgy properties by interpretation of markings, numbering systems or visual, chemical or mechanical means, to inform appropriate selection
 - handle and store aircraft metals used for sheet metal components, including sealing agents, to industry standards
 - identify aircraft sheet metal assembly fasteners (metal and non-metallic) by interpretation of markings, numbering systems, size, shape and colour
 - use appropriate hand tools and machines under supervision to remove and assemble aircraft sheet metal components
 - perform, under guidance and in accordance with enterprise procedures, at least two routine sheet metal repair techniques, including at least one metal scab patch repair
 - apply corrosion removal and treatment techniques during repair
 - restore sealing and surface finishes
 - apply safety precautions and quality requirements, standards and practices at all times, and as relevant to the system/s being repaired or modified.
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Knowledge Evidence

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include a basic knowledge of:

- construction principles and repair techniques for non-primary sheet metal components
- how to obtain relevant material safety data sheets (MSDSs)
- the use of applicable items of personal protective equipment (PPE)
- work health and safety (WHS) procedures for modifying and repairing aircraft non-primary structural sheet metal components
- maintenance documentation for modifying and repairing aircraft non-primary structural sheet metal components.
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Assessment Conditions

The following conditions of assessment represent the requirements of the regulators (DASA and 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 modifying or repairing non-primary structural sheet metal components. 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 modifying or repairing non-primary structural sheet metal components
 - tools and equipment specified in relevant aircraft maintenance manuals
 - general-purpose tools, ground support 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.

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