



Australian Government

MEA327 Fabricate and/or repair aircraft mechanical components or parts

Release: 2

MEA327 Fabricate and/or repair aircraft mechanical components or parts

Modification History

Release 2. Equivalent to MEA327 Fabricate and/or repair aircraft mechanical components or parts with amended prerequisite codes.

Application

This unit of competency requires application of hand skills and the use of relevant maintenance manuals, drawings and specifications to fabricate and repair a range of fixed and rotary wing aircraft mechanical 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) and Structures Certificate IV 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).

Where a 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. Fabricate mechanical components or parts | 1.1 Specifications are interpreted to determine the dimensions and procedure for fabrication |
| | 1.2 Appropriate materials, tools, equipment and assembly or fabrication jigs are selected and prepared for the particular specification requirements |
| | 1.3 Components or parts are fabricated in accordance with required specifications 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 Test equipment and rigs are used, where applicable, to confirm serviceability of finished components |
| | 1.5 Fabricated components are tagged, sealed and packaged within specified procedures |
| | 1.6 Required maintenance documentation is completed and processed in accordance with standard enterprise procedures |
| 2. Repair mechanical components or parts | 2.1 Repair or replacement requirements are determined, following disassembly and assessment of component parts for serviceability, in accordance with the relevant maintenance documentation while observing all relevant WHS requirements, including the use of MSDS and items of PPE |
| | 2.2 Tagging and repair instructions are accurately specified for parts requiring specialist repair |
| | 2.3 Components are modified, as approved, by relevant manufacturers' bulletins or procedures |
| | 2.4 Mechanical component parts are assembled within specified tolerances and in accordance with the appropriate maintenance documents |
| | 2.5 Mechanical components are adjusted, as required, to operate within prescribed specifications |

- 2.6 Repaired components are tagged, sealed and packaged in accordance with specified procedures
- 2.7 Required 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.

Applicable components to be fabricated and/or repaired include:

- Hose assemblies
- Pipes
- Cables, pulleys, chains, sprockets and gear drives
- Control rods, bellcranks and links

Repair includes:

- Standard techniques for pipes and replacement of eye-ends, tubes or bearings for control rods/pulleys/sprockets and bushes or bearings for bellcranks and links

Procedures and requirements include:

- Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

Unit Mapping Information

Release 2. Equivalent to MEA327 Fabricate and/or repair aircraft mechanical components or parts.

Links

Companion Volume implementation guides are found in VETNet -

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