



Australian Government

MEAMEC0024 Fabricate and repair aircraft mechanical components or component parts

Release: 1

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Modification History

Release 1. 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 MEA327 Fabricate and/or repair aircraft mechanical components or parts.

Application

This unit describes the skills and knowledge required to apply hand skills and use maintenance manuals, drawings and specifications to fabricate and repair a range of fixed and rotary wing aircraft mechanical components during scheduled or unscheduled maintenance. Work may be performed individually or as part of a team.

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

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Fabricate mechanical components or parts	1.1 Interpret specifications to determine the dimensions and procedure for fabrication

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	1.2 Select and prepare appropriate materials, tools, equipment and assembly or fabrication jigs for the specification requirements 1.3 Fabricate components or component parts in accordance with required specifications 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) 1.4 Use test equipment and rigs, when required, to confirm serviceability of finished components 1.5 Tag, seal and pack fabricated components within specified procedures 1.6 Complete required maintenance documentation and process in accordance with standard enterprise procedures
2. Repair mechanical components or component parts	2.1 Determine repair or replacement requirements following disassembly and assess component parts for serviceability, in accordance with the relevant maintenance documentation while observing all relevant WHS requirements, including the use of MSDSs and items of PPE 2.2 Accurately specify tagging and repair instructions for parts requiring specialist repair 2.3 Modify components or component parts according to relevant manufacturers' bulletins or procedures 2.4 Assemble mechanical component parts within specified tolerances and in accordance with the appropriate maintenance documents 2.5 Make required adjustments to mechanical components or component parts to operate within prescribed specifications 2.6 Tag, seal and pack repaired components in accordance with specified procedures 2.7 Complete required maintenance documentation and process in accordance with standard enterprise 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 documentation and procedures.
- Writing skills to complete maintenance documentation.
- Numeracy skills to interpret and communicate technical information.

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 MEA327 Fabricate and/or repair aircraft mechanical components or parts.

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 MEAMEC0024 Fabricate and repair aircraft mechanical components or component parts

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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:

- fabricate or repair at least one item from each of the following groups:
 - hose assemblies
 - pipes
 - cables, pulleys, chains, sprockets and gear drives
 - control rods, bellcranks and links
- perform the standard techniques for each of the following repairs:
 - pipe repairs
 - replacement of eye-ends, tubes or bearings for control rods or pulleys or sprockets
 - bushes or bearings for bellcranks and links.
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Knowledge Evidence

There must be evidence the candidate has knowledge of:

- component operation
- fabrication and repair processes, regulatory requirements and procedures, including work health and safety (WHS)
- maintenance manuals for fabrication and repair of aircraft mechanical components or parts
- how to obtain material safety data sheets (MSDSs)
- use of personal protective equipment (PPE).
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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 fabricating and repairing aircraft mechanical components or component parts. 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 fabricating and repairing aircraft mechanical components or component parts
 - components, parts, tools and equipment specified in maintenance documentation
 - general- and special-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.

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