



Australian Government

MEA410C Maintain aircraft structure/components

Release: 1

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Modification History

Knowledge requirements expanded - equivalent to previous version.

Unit Descriptor

This unit of competency is part of the Mechanical Certificate IV (Aircraft Maintenance Stream) training pathways. It covers the competencies required to remove corrosion damage from the structure and structural components of fixed or rotary wing aircraft. The unit is used in workplaces that operate under the airworthiness regulatory systems of the ADF and CASA. Where a CASA licensing outcome is sought this unit forms part of the CASA requirement for the granting of the chosen B1 maintenance certification licence under CASR Part 66, in accordance with the licensing provisions in Section 3, Assessment Guidelines.

Application of the Unit

This unit requires application of hand skills and the use of maintenance publications to remove corrosion from aircraft structural materials. Applications include the metallic structure of fixed and rotary wing aircraft and structural components.

Licensing/Regulatory Information

Refer to unit descriptor

Pre-Requisites

MEA401C Inspect aircraft structures

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

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| 1 Prepare to remove corrosion damage | <p>1.1 Extent of damage is correctly assessed to assist in determining removal procedure</p> <p>1.2 Structure is supported and prepared, in accordance with the applicable maintenance manual, to ensure personnel safety and freedom from damage</p> <p>1.3 Appropriate <i>corrosion removal procedure</i> is identified in accordance with structural repair manual and/or approved data</p> <p>1.4 Specialist advice is obtained in establishing an approved repair scheme where a standard corrosion removal procedure cannot be identified or damage criteria is out of limits</p> <p>1.5 All materials and equipment required are organised</p> |
| 2 Remove corrosion damage | <p>2.1 Corrosion removal is performed and protective coatings, sealants and jointing compounds applied, in accordance with approved repair scheme, ensuring that aircraft standard practices are used and process requirements are carried out</p> <p>2.2 Structure/component is cleaned of all waste material or contaminants</p> <p>2.3 Components are adjusted, where necessary, to operate within prescribed specifications</p> <p>2.4 Required maintenance/repair documentation is completed and processed in accordance with standard enterprise procedures</p> <p>2.5 Repaired components or assemblies are tagged, sealed and packaged or cradled in accordance with specified procedures, where required</p> |

Required Skills and Knowledge

Look for evidence that confirms knowledge of:

- methods of corrosion removal in aircraft structural metals
- types of corrosion typically found in various areas of aircraft structure
- removal of corrosion damage in integral fuel tanks and sealing of faying surfaces, including specific OHS and PPE requirements, including confined space entry requirements
- surface finishes and methods of restoration, including specific OHS and PPE requirements
- how to obtain MSDS
- relevant maintenance and structural repair manuals specifying corrosion removal limits and methods
- relevant regulatory requirements and standard procedures

Look for evidence that confirms skills in:

- applying all relevant OHS procedures, including the use of MSDS and selection and use of applicable items of PPE
- using approved maintenance documentation and aircraft publications relating to aircraft structure
- identifying various aircraft metals and their basic metallurgy properties by interpretation of markings, numbering systems or visual, chemical or mechanical means
- applying structural corrosion removal/treatment techniques
- restoring aircraft structure sealing and surface finishes

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	A person who demonstrates competency in this unit must be able to apply hand skills and use maintenance publications to remove corrosion damage from aircraft structural materials while applying all relevant safety precautions.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	The underlying skills inherent in this unit should be transferable into other areas that require similar techniques. It is essential that procedures take into account all safety precautions and quality requirements, standards and practices and processes associated with corrosion removal. Evidence of knowledge about corrosion removal techniques and limits and the use of the standard repair manual in a range of different repair situations will be necessary to supplement evidence of ability to plan and undertake structure and component repair by removal of corrosion within applicable limits. A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements of the unit of competency are being achieved under routine supervision on at least one task from each of Groups 1 to 3 in the Range Statement. This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide.
Context of and specific resources for assessment	Competency should be assessed in the work environment, using tools and equipment specified by aircraft maintenance manuals. It is also expected that general purpose tools, test and ground support equipment found in most routine situations would be used where appropriate.
Method of assessment	
Guidance information for assessment	

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Note	The Range Statements below are numbered to facilitate specification of the assessment requirements included in the Evidence Guide
Corrosion removal procedure	Corrosion removal procedure may include: 1. Removing corrosion by chemical and mechanical methods 2. Restoring protective coatings 3. Applying sealants and jointing compounds
Application	Application of this unit may relate to: • scheduled or unscheduled maintenance • individual or team-related activities
Procedures and requirements	Refer to industry standard specified by manufacturers, regulatory authorities or the enterprise

Unit Sector(s)

Aviation maintenance

Custom Content Section

Not applicable.