



**Australian Government**

# **MEA40718 Certificate IV in Aeroskills (Mechanical)**

**Release 2**

## MEA40718 Certificate IV in Aeroskills (Mechanical)

### Modification History

Release 2. Elective unit codes updated. Supersedes and is equivalent to MEA40718 Certificate IV in Aeroskills (Mechanical) (Release 1).

Release 1. Supersedes and equivalent to MEA40715 Certificate IV in Aeroskills (Mechanical). Unit codes updated.

### Qualification Description

This qualification applies to employees of Civil Aviation Maintenance Organisations (AMOs) or to members of the Australian Defence Force (ADF) who perform scheduled inspections, fault diagnosis and repair, and modification of airframes and airframe mechanical, hydraulic and pneumatic systems and components and of aircraft engines and (where applicable) propellers.

The qualification applies to either aircraft maintenance performed on flight lines/ramps and in hangars, or to airframe and engine component repair and overhaul performed in workshops. These outcomes are defined in two streams:

- aircraft maintenance stream
- component maintenance workshop stream.

The qualification consists of:

- common units that apply to all Aeroskills specialist streams at AQF Certificate III and IV levels
- mechanical and structures technical stream units relating to airframe and engine system and component maintenance
- mechanical technical stream units and a small number of avionic stream units that are applicable to the aircraft component maintenance workshop stream.

Because of the wide application of this qualification there is considerable flexibility in the selection of technical stream units and individuals should be mindful of their future career aspirations when selecting units for, in particular, the aircraft maintenance stream. Provided that the correct elective units are selected, the qualification articulates with the MEA50219 Diploma of Aeroskills (Mechanical), which qualifies individuals for the grant by Civil Aviation Safety Authority (CASA) of a B1 Aircraft Maintenance Engineer Licence.

The qualification also provides credit towards the MEA50422 Diploma of Aviation Maintenance Management and the MEA60222 Advanced Diploma of Aviation Maintenance Management.

## Entry Requirements

Not applicable

## Packaging Rules

To be awarded the MEA40718 Certificate IV in Aeroskills (Mechanical) – aircraft maintenance stream, competency must be demonstrated in 21 units, consisting of:

- all 8 core units
- 13 units from Group A.

To be awarded the MEA40718 Certificate IV in Aeroskills (Mechanical) – component maintenance workshop stream, competency must be demonstrated in 14 units, consisting of:

- all 8 core units
- 6 units from Groups B and C, consisting of:
  - at least 3 units from Group B
  - 3 units or fewer from Group C.

### CORE UNITS

Unit code	Unit title	Prerequisites
MEA107	Interpret and use aviation maintenance industry manuals and specifications	
MEA118	Conduct self in the aviation maintenance environment	
MEA154	Apply work health and safety practices in aviation maintenance	
MEA155	Plan and organise aviation maintenance work activities	MEA154
MEA156	Apply quality standards during aviation maintenance activities	MEA107, MEA154
MEA157	Complete aviation maintenance industry documentation	
MEA158	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance	
MSMENV272	Participate in environmentally sustainable work practices	

**ELECTIVE UNITS****Group A (Aircraft Maintenance Stream)**

Choose 13 of the elective mechanical and structures technical stream units listed below while observing the unit selection guidelines in column 4.

<b>Unit code</b>	<b>Unit title</b>	<b>Prerequisites</b>	<b>Unit selection guidelines</b>
AVIF0044	Marshal aircraft		
MEA201	Remove and install miscellaneous aircraft electrical hardware/components	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158	
MEA246	Fabricate and/or repair aircraft electrical hardware or parts	MEA201, MEA296	
MEA296	Use electrical test equipment in aviation maintenance activities	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158	
MEA301	Perform aircraft flight servicing	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158	
MEA303	Remove and install aircraft pneumatic system components	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158	
MEA304	Remove and install non-pressurised aircraft structural and non-structural components	MEA398	Do not take with MEA317

MEA305	Remove and install aircraft fixed wing flight control system components	MEA398	
MEA306	Remove and install engines and engine system components	MEA398	
MEA307	Remove and install propeller systems and components	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158	
MEA308	Remove and install rotary wing rotor and flight control system components	MEA398	
MEA309	Inspect, test and troubleshoot aircraft hydro-mechanical and landing gear systems and components	MEA398	Do not take with MEA318 or MEA320
MEA310	Inspect, test and troubleshoot aircraft pneumatic systems and components	MEA303	Do not take with MEA318 or MEA320
MEA312	Inspect, test and troubleshoot aircraft fixed wing flight control systems and components	MEA305	Do not take with MEA318 or MEA321
MEA313	Inspect, test and troubleshoot piston engine systems and components	MEA306	
MEA315	Inspect, test and troubleshoot propeller systems and components	MEA307	
MEA316	Inspect, test and troubleshoot rotary wing rotor and control systems and components	MEA308	

MEA317	Remove and install pressurised aircraft structural and non-structural components	MEA398, MEA303	Do not take with MEA304
MEA318	Inspect aircraft hydro-mechanical, mechanical, gaseous and landing gear systems and components	MEA305, MEA398, MEA303	Do not take with MEA309 or MEA310
MEA319	Inspect gas turbine engine systems and components	MEA306	Do not take with MEA314
MEA320	Test and troubleshoot aircraft hydro-mechanical, gaseous and landing gear systems and components	MEA318	Do not take with MEA309 or MEA310
MEA321	Test and troubleshoot aircraft fixed wing flight control systems and components	MEA318	Do not take with MEA312
MEA322	Test and troubleshoot gas turbine engine systems and components	MEA319	Do not take with MEAMEC0013
MEA328	Maintain and/or repair aircraft mechanical components or parts	MEA398, MEA303	Do not take with MEAMEC0024
MEA339	Inspect, repair and maintain aircraft structures	MEA317 or MEA304	Do not take with MEASTR0001 or MEASTR0005
MEA362	Maintain aircraft vapour cycle air conditioning systems	MEA201, MEA246	
MEA398	Remove and install aircraft hydro-mechanical and landing gear system components	MEA154	
MEAMEC0013	Inspect, test and troubleshoot gas turbine engine systems and	MEA306	Do not take with MEA319 or MEA322

	components		
MEAMEC0024	Fabricate and repair aircraft mechanical components or component parts	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158	Do not take with MEA328
MEAMEC0053	Perform borescope inspections		Should be combined with a unit where CASA borescope inspection authority is required: MEA313, MEA322, MEAMEC0013 or MEAMEC0067
MEASTR0001	Inspect aircraft structures	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158	Do not take with MEA339 or MEAMEC0058
MEASTR0005	Maintain aircraft structure and components	MEASTR0001	Do not take with MEA339

#### Group B and C (Component Maintenance Workshop Stream)

Choose at least 3 units from Group B and no more than 3 units from Group C to make up a total of 6 elective units.

Unit code	Unit title	Prerequisites
MEAMEC0060	Repair and overhaul aircraft hydraulic system components	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158
MEAMEC0061	Repair and overhaul aircraft pneumatic system components	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158

MEAMEC0062	Repair and/or overhaul aircraft fuel system components	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158
MEAMEC0063	Repair and overhaul aircraft fuel system components	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158
MEAMEC0064	Repair and overhaul gas turbine engine combustion section component and modules	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158
MEAMEC0065	Repair and overhaul gas turbine, engine turbine and exhaust section components	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158
MEAMEC0066	Repair and overhaul gas turbine engine ancillary section components	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158
MEAMEC0067	Test gas turbine engines and engine modules after overhaul or repair	MEAMEC0063, MEAMEC0064, MEAMEC0065, MEAMEC0066
MEAMEC0068	Repair and overhaul propellers	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158
MEAMEC0069	Repair and overhaul rotary wing dynamic components	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158
MEAMEC0070	Repair and overhaul aircraft mechanical system components	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158



MEAMEC0071	Disassemble aircraft piston engines	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158
MEAMEC0072	Repair and overhaul aircraft piston engine cylinder assembly components	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158
MEAMEC0073	Repair and overhaul aircraft piston engine crankcase assembly components	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158
MEAMEC0074	Reassemble aircraft piston engines	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158
MEAMEC0075	Assemble aircraft piston engine quick engine change unit	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158
MEAMEC0076	Test aircraft piston engines after repair or overhaul	MEAMEC0071, MEAMEC0072, MEAMEC0073, MEAMEC0074, MEAMEC0075

## Group C

Unit code	Unit title	Prerequisites
MEA201	Remove and install miscellaneous aircraft electrical hardware/components	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158

MEA246	Fabricate and/or repair aircraft electrical hardware or parts	MEA201, MEA296
MEA296	Use electrical test equipment in aviation maintenance activities	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158
MEAMEC0055	Shot-peen aircraft components	MEA107, MEA154, MEA155 MEA156, MEA157, MEA158
MEM24002B	Perform penetrant testing	MEM18001 (Note that MEA158 is equivalent) MEM24012C
MEM24004B	Perform magnetic particle testing	MEM18001 (Note that MEA158 is equivalent) MEM24012C
MEM24012C	Apply metallurgy principles	

## Qualification Mapping Information

Release 2. Supersedes and is equivalent to MEA40718 Certificate IV in Aeroskills (Mechanical) (Release 1).

## Links

Companion Volume implementation guides are found in VETNet -

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