



Australian Government

**MEA50219 Diploma of Aeroskills
(Mechanical)**

Release 1

MEA50219 Diploma of Aeroskills (Mechanical)

Modification History

Release 1. MEA50219 Diploma of Aeroskills (Mechanical) supersedes and is not equivalent to MEA50218 Diploma of Aeroskills (Mechanical) Release 1.

Non-equivalent qualification due to addition of two elective unit groups to meet the requirements of Civil Aviation Safety Authority (CASA) licence subcategories B1.2 and B1.4.

Qualification Description

The qualification applies to individuals seeking the grant of a Civil Aviation Safety Authority (CASA) B1 Aircraft Maintenance Engineer Licence covering the supervision, performance and certification of airframe, engine, electrical and structural maintenance on aircraft that are type-rated by CASA for maintenance purposes.

The qualification satisfies CASA requirements under Civil Aviation Safety Regulations (CASR) 1998, for the grant of Aircraft Maintenance Engineer Licences in sub-categories B1.1, B1.2, B1.3 and B1.4 when the knowledge and skills requirements align with CASA syllabus requirements in the Companion Volume Implementation Guide Interface with CASA, and training has been delivered in accordance with the requirements of CASR Part 147.

Credits are also provided towards the MEA50418 Diploma of Aviation Maintenance Management (Mechanical) and the MEA60218 Advanced Diploma of Aviation Maintenance Management (Mechanical).

Entry Requirements

Not applicable

Packaging Rules

To be awarded the MEA50219 Diploma of Aeroskills (Mechanical) competency must be demonstrated in 35 to 43 units, chosen as described below.

All B1 Licence sub-categories require the following 28 units:

- 11 core Diploma level (CASA licensing) common, technical stream and imported units
- 17 core Certificate IV common and technical stream units.

Depending on the CASA B1 Licence sub-category being sought, an additional 7 to 15 units are required. All units must be chosen as specified under the conditions set out below:

Group A Elective technical stream units required by CASA for a B1.1 Licence – **13 or 15** units

Group B Elective technical stream units required by CASA for a B1.2 licence - **13** units.

Group C Elective technical stream units required by CASA for a B1.3 Licence - **8** units.

Group D Elective technical stream units required by CASA for a B1.4 licence - **7** units.

Core units of competency

Complete the **11** Diploma level common and mechanical technical stream units listed below.

| Unit code | Unit title | Prerequisites |
|-----------|--|---|
| MEA111 | Perform administrative processes to prepare for the certification of civil aircraft maintenance | All Cert IV units listed below for applicable licence (see Note 1) |
| MEA112 | Plan and implement civil aircraft maintenance activities | All Cert IV units listed below for applicable licence (see Note 1) |
| MEA113 | Supervise civil aircraft maintenance activities and manage human resources in the workplace | All Cert IV units listed below for applicable licence (see Note 1) |
| MEA116 | Apply work health and safety procedures at supervisor level in aviation maintenance | |
| MEA142 | Manage self in the aviation maintenance environment | |
| MEA148 | Apply mathematics and physics in aviation maintenance | |
| MEA323 | Perform advanced troubleshooting in aircraft mechanical maintenance | All Cert IV units listed below for applicable licence (see Note 1) |
| MEA325 | Weigh aircraft and perform aircraft weight and balance calculations as a result of modifications | All Cert IV units listed below for applicable licence (see Note 1) |
| MEA343 | Remove and install avionics system components | MEA294 or MEA227 |

| Unit code | Unit title | Prerequisites |
|-----------|--|---|
| MEA365 | Assess structural repair/modification requirements and evaluate structural repairs and modifications | All Cert IV units listed below for applicable licence (see Note 1) |
| MSMENV472 | Implement and monitor environmentally sustainable work practices | |

Note 1: While the above core units do not have specific prerequisite units, it is a CASA licensing requirement that competency not be sought until all of the Certificate IV units listed below for the applicable licence have been attained.

Plus the following **17** core Certificate IV common and avionic/mechanical technical stream units listed below which are mandatory for CASA B1 licence subcategories.

| 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 | |
| MEA201 | Remove and install miscellaneous aircraft electrical hardware/components | MEA107, MEA154, MEA155 MEA156, MEA157, MEA158 |
| MEA203 | Remove and install advanced aircraft electrical system components | MEA201 |

| Unit code | Unit title | Prerequisites |
|-----------|---|---|
| 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 |
| MEA306 | Remove and install engines and engine system components | MEA107, MEA154, MEA155, MEA156, MEA157, MEA158 |
| MEA328 | Maintain and/or repair aircraft mechanical components or parts | MEA303, MEA398 |
| MEA339 | Inspect, repair and maintain aircraft structures | MEA304 or MEA317 |
| MEA398 | Remove and install aircraft hydro-mechanical and landing gear system components | MEA154 |

Elective units of competency

Group A

To meet the criteria for the grant of a **B1.1** Licence complete **13** or **15** units listed below as specified in the unit selection guidelines in column 4.

| Unit code | Unit title | Prerequisites | Unit selection guidance |
|-----------|--|---|-------------------------|
| MEA208 | Remove and install aircraft pressurisation control system components | MEA201 | |
| MEA209 | Remove and install aircraft oxygen system components | MEA107, MEA154 MEA155, MEA156, MEA157, MEA158 | |
| MEA219 | Inspect, test and troubleshoot pressurisation control systems and components | MEA208, MEA246 | |

| Unit code | Unit title | Prerequisites | Unit selection guidance |
|------------------|--|--|---|
| MEA222 | Inspect, test and troubleshoot aircraft oxygen systems and components | MEA209 | |
| MEA223 | Inspect aircraft electrical systems and components | MEA203, MEA246 | |
| MEA227 | Test and troubleshoot aircraft electrical systems and components | MEA223 | |
| MEA305 | Remove and install aircraft fixed wing flight control system components | MEA398 | |
| MEA307 | Remove and install propeller systems and components | MEA107, MEA154, MEA155, MEA156, MEA157, MEA158 | Mandatory for B1.1 where the rating sought includes propellers |
| MEA315 | Inspect, test and troubleshoot propeller systems and components | MEA307 | Mandatory unit for B1.1 where the rating sought includes propellers |
| MEA317 | Remove and install pressurised aircraft structural and non-structural components | MEA369 or MEA398 and MEA303 | |
| MEA318 | Inspect aircraft hydro-mechanical, mechanical, gaseous and landing gear systems and components | MEA303, MEA305, MEA398 | |
| MEA319 | Inspect gas turbine engine systems and components | MEA306 | |
| MEA320 | Test and troubleshoot aircraft hydro-mechanical, gaseous and landing gear systems and components | MEA318 | |
| MEA321 | Test and troubleshoot aircraft fixed wing flight control systems and components | MEA318 | |
| MEA322 | Test and troubleshoot gas turbine | MEA319 | |

| Unit code | Unit title | Prerequisites | Unit selection guidance |
|-----------|-------------------------------|---------------|-------------------------|
| | engine systems and components | | |

Group B

To meet the criteria for a **B1.2** Licence complete 13 units listed below.

| Unit code | Unit title | Prerequisites |
|-----------|--|--|
| MEA208 | Remove and install pressurisation control system components | MEA201 |
| MEA209 | Remove and install aircraft oxygen system components | MEA107, MEA154 MEA155, MEA156 MEA157, MEA158 |
| MEA219 | Inspect, test and troubleshoot pressurisation control systems and components | MEA208, MEA246 |
| MEA222 | Inspect, test and troubleshoot aircraft oxygen systems and components | MEA209 |
| MEA294 | Inspect, test and troubleshoot advanced aircraft electrical systems and components | MEA203 |
| MEA305 | Remove and install aircraft fixed wing flight control system components | MEA398 |
| MEA307 | Remove and install propeller systems and components | MEA107, MEA154 MEA155, MEA156 MEA157, MEA158 |
| MEA309 | Inspect, test and troubleshoot aircraft hydro-mechanical and landing gear systems and components | MEA398 |
| MEA310 | Inspect, test and troubleshoot aircraft pneumatic systems and | MEA303 |

| Unit code | Unit title | Prerequisites |
|-----------|--|-----------------------------|
| | components | |
| MEA312 | Inspect, test and troubleshoot aircraft fixed wing flight control systems and components | MEA305 |
| MEA313 | Inspect, test and troubleshoot piston engine systems and components | MEA306 |
| MEA315 | Inspect, test and troubleshoot propeller systems and components | MEA307 |
| MEA317 | Remove and install pressurised aircraft structural and non-structural components | MEA369 or MEA398 and MEA303 |

Group C

To meet the criteria for the grant of a **B1.3** Licence complete **8** units listed below.

| Unit code | Unit title | Prerequisites |
|-----------|--|---------------|
| MEA294 | Inspect, test and troubleshoot advanced aircraft electrical systems and components | MEA203 |
| MEA304 | Remove and install non-pressurised aircraft structural and non-structural components | MEA398 |
| 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 |
| MEA310 | Inspect, test and troubleshoot aircraft pneumatic systems and components | MEA303 |
| MEA316 | Inspect, test and troubleshoot | MEA308 |

| Unit code | Unit title | Prerequisites |
|-----------|---|---------------|
| | rotary wing rotor and control systems and components | |
| MEA319 | Inspect gas turbine engine systems and components | MEA306 |
| MEA322 | Test and troubleshoot gas turbine engine systems and components | MEA319 |

Group D

To meet the criteria for a B1.4 Licence complete 7 units listed below

| Unit code | Unit title | Prerequisites |
|-----------|--|---------------|
| MEA294 | Inspect, test and troubleshoot advanced aircraft electrical systems and components | MEA203 |
| MEA304 | Remove and install non-pressurised aircraft structural and non-structural components | MEA398 |
| 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 |
| MEA310 | Inspect, test and troubleshoot aircraft pneumatic systems and components | MEA303 |
| MEA313 | Inspect, test and troubleshoot piston engine systems and components | MEA306 |
| MEA316 | Inspect, test and troubleshoot rotary wing rotor and control systems and components | MEA308 |

Qualification Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?docId=ce216c9c-04d5-4b3b-9bcf-4e81d0950371&n=Aeroskills%20Training%20Package>