



Australian Government

MEAMEC0071 Disassemble aircraft piston engines

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 MEA392 Disassemble aircraft piston engines.

Application

This unit describes the skills and knowledge required to apply hand skills, theory knowledge and maintenance publication procedures to disassemble aircraft piston engines during workshop repair and/or overhaul.

Applications include fixed and rotary wing aircraft piston engines and components and 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. Determine requirements	1.1 Interpret and match engine defect reports (removal tags) or customer order by part and serial numbers

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Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	1.2 Inspect piston engine in accordance with maintenance publications to establish serviceability state and confirm defects, when required 1.3 Determine and record piston engine build status and quick engine change (QEC) components in accordance with standard enterprise procedures 1.4 Establish modification status and engine operating hours from the engine logbook to assist in determining the repair or overhaul requirements for the engine 1.5 Identify and document extent of overhaul or repair in accordance with standard enterprise procedures
2. Disassemble piston engine	2.1 When required, remove QEC components from the engine, determine maintenance requirements and raise necessary documentation and package with the components 2.2 Label removed QEC components not requiring maintenance and store for reinstallation 2.3 Install engine in work stand and clean engine 2.4 Disassemble engine in accordance with maintenance publication and/or enterprise procedures while observing all relevant work health and safety (WHS) procedures, including the use of material safety data sheets (MSDSs) and personal protective equipment (PPE) 2.5 Clean, tag and inspect removed components for serviceability in accordance with enterprise procedures 2.6 Dispose of components that are not to be reinstalled in accordance with enterprise procedures and initiate action to obtain replacement components 2.7 Process components to be re-fitted for detailed inspection, repair or overhaul and/or modification, when required

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, procedures, specifications (allowable limits) and manufacturer's instructions.

- Writing skills to complete maintenance documentation.
- Numeracy skills to interpret and communicate data and 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 MEA392 Disassemble aircraft piston engines.

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 MEAMEC0071 Disassemble aircraft piston engines

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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 disassemble aircraft piston engines at least two different types of engine maintained by the enterprise.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- how to obtain relevant material safety data sheets (MSDSs)
- the use of applicable items of personal protective equipment (PPE) for disassembling aircraft piston engines
- work health and safety (WHS) procedures for disassembling aircraft piston engines
- aircraft piston engine fault diagnosis techniques
- aircraft piston engine system and component operation
- engine cleaning and disassembly procedures and component inspection for serviceability, including identification of life expired components
- enterprise documentation requirements.
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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 disassembling aircraft piston engines. 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 disassembling aircraft piston engines
 - tools and equipment specified in maintenance documentation.
 - general-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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