



Australian Government

MEAMEC0030 Maintain aircraft piston engine components or component parts

Release: 1

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Modification History

Release 1. Application changed. 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 MEA333 Maintain aircraft piston engine components or parts.

Application

This unit describes the skills and knowledge required to apply hand skills and use maintenance documentation to dismantle, inspect, maintain and assemble aircraft piston engine components or parts during scheduled or unscheduled maintenance under the guidance of a qualified person. Work under the guidance of a qualified person may be performed individually or as part of a team.

This unit applies to piston engine components or parts in a workshop.

Note that the scope of any repair or modification and the procedure to be followed will be provided by the qualified person, and will be within the scope of the unit of competency MEA158 Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance

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. Prepare to dismantle inspect, maintain and assemble piston engine components or component parts	1.1 Confirm maintenance or repair requirements as defined by the qualified person, standard enterprise procedures and the relevant maintenance documentation 1.2 Specify tagging and repair instructions in accordance with standard enterprise procedures and as directed by a qualified person for parts requiring specialist repair 1.3 Select and prepare applicable materials, tools, equipment and assembly or fabrication jigs for the maintenance and repair requirements in accordance with standard enterprise procedures and relevant maintenance documentation
2. Dismantle, inspect, maintain and assemble aircraft piston engine components or component parts	2.1 Remove and/or disassemble components or component parts in accordance with standard enterprise procedures, relevant maintenance documentation and qualified person guidance 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) 2.2 Carry out routine maintenance, repair or modification procedures, as approved by relevant manufacturers' bulletins or procedures, and in accordance with required standard enterprise procedures and specifications while observing all relevant WHS requirements, including the use of MSDSs and items of PPE 2.3 Assemble component parts within specified tolerances and in accordance with standard enterprise procedures and the appropriate maintenance documents 2.4 Where applicable, and as required by the qualified person, provide assistance in the final adjustment and testing of components to confirm serviceability
3. Complete maintenance, repair or modification activities	3.1 Complete required documentation and process in accordance with standard enterprise procedures 3.2 Tag, seal and pack maintained or repaired or modified components within specified 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, procedures 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 MEA333 Maintain aircraft piston engine 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 MEAMEC0030 Maintain aircraft piston engine 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:

- perform maintenance at least once on a component or component part from each of the following:
 - cooling systems
 - engine cylinder assemblies
 - engine crankcase assemblies
 - accessory drives
 - lubrication systems.
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Knowledge Evidence

There must be evidence the candidate has knowledge of:

- component operation at a basic level, sufficient to:
 - remove, install and maintain components such as hoses, pipes and ducts
 - dismantle and maintain engine assemblies and sub-assemblies
 - apply unit MEA158 Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance, skills to repair or modify components of sub-assemblies and systems listed in the Performance Evidence
- standard or routine repair procedures and processes
- relevant work health and safety (WHS) practices
- 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 qualified person guidance, in the workplace or in a simulated environment that reflects workplace conditions and contingencies encountered in maintaining aircraft piston engine components or 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 maintaining aircraft piston engine components or 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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