



**Australian Government**

# **MEA395 Reassemble aircraft piston engines**

**Release: 2**

# MEA395 Reassemble aircraft piston engines

## Modification History

Release 2. Equivalent to MEA395 Reassemble aircraft piston engines with amended prerequisite codes.

## Application

This unit of competency requires application of hand skills, theory knowledge and maintenance publication procedures to reassemble aircraft piston engines during workshop repair and/or overhaul. Note that this relates to the bare engine and does not include the assembly of a quick engine change (QEC) unit. For QEC build-up refer to unit MEA396 Assemble aircraft piston engine quick engine change unit.

Applications include fixed and rotary wing aircraft piston engines and components. Work can be performed individually or as a member of a team.

The unit is part of the Mechanical Certificate IV (Component Workshop Maintenance Stream) training pathway.

The unit is used in workplaces that operate under the airworthiness regulatory systems of the Australian Defence Force (ADF) and the Civil Aviation Safety Authority (CASA).

## 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

## Unit Sector

### Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

- |                                      |                                                                                                                                                                                                                                                                                     |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Prepare to assemble piston engine | 1.1 Engine build requirements are correctly interpreted and matched by part and serial numbers                                                                                                                                                                                      |
|                                      | 1.2 Correct engine sub-assemblies and components are gathered for engine assembly and their serviceability state and modification status is confirmed in accordance with the relevant maintenance documentation and quality procedures                                              |
|                                      | 1.3 Required hardware and plumbing is obtained and confirmed as approved items                                                                                                                                                                                                      |
| 2. Reassemble piston engine          | 2.1 Piston engine sub-assemblies and components are prepared for reassembly in accordance with maintenance manual and/or enterprise procedures                                                                                                                                      |
|                                      | 2.2 Components are assembled and adjusted in accordance with the maintenance manual and/or enterprise procedures                                                                                                                                                                    |
|                                      | 2.3 Engine is assembled and components and linkages are adjusted in accordance with maintenance data requirements while observing relevant work health and safety (WHS) procedures, including the use of material safety data sheets (MSDS) and personal protective equipment (PPE) |
|                                      | 2.4 Reassembled engine is prepared for testing                                                                                                                                                                                                                                      |

### Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

### Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional

contexts) are included.

**Piston engine  
sub-assemblies and  
components include:**

- Crankcase assembly
- Cylinder assemblies
- External lubrication system components
- Propeller governor (where applicable to the enterprise)
- Fuel system components
- Ignition system components
- Exhaust system components
- Turbocharger and waste gate (where applicable to the enterprise)

**Testing and adjustment:**

- Complex testing and adjusting of components, where required, will be carried out under supervision at the appropriate level

**Procedures and  
requirements include:**

- Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

## Unit Mapping Information

Release 2. Equivalent to MEA395 Reassemble aircraft piston engines

## Links

Companion Volume implementation guides are found in VETNet -

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