



Australian Government

MEA392 Disassemble aircraft piston engines

Release: 1

MEA392 Disassemble aircraft piston engines

Modification History

Release 1 - New unit of competency

Application

This unit of competency requires application of 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 part of the Mechanical Certificate IV (Component Workshop Maintenance Stream) training pathway. It 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

MEA101	Interpret work health and safety practices in aviation maintenance
MEA103	Plan and organise aviation maintenance work activity
MEA105	Apply quality standards applicable to aviation maintenance processes
MEA107	Interpret and use aviation maintenance industry manuals and specifications
MEA108	Complete aviation maintenance industry documentation
MEA109	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.

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|------------------------------|--|
| 1. Determine requirements | 1.1 Engine defect reports (removal tags) or customer order are correctly interpreted and matched by part and serial numbers |
| | 1.2 Piston engine is inspected in accordance with maintenance publications to establish serviceability state and confirm defects, if necessary |
| | 1.3 Piston engine build status is determined and quick engine change (QEC) components are recorded in accordance with standard enterprise procedures |
| | 1.4 Modification status and engine operating hours are clearly established from the engine log book to assist in determining the repair or overhaul requirements for the engine |
| | 1.5 Extent of overhaul or repair is identified and documented in accordance with standard enterprise procedures |
| 2. Disassemble piston engine | 2.1 Where applicable, QEC components are removed from the engine, maintenance requirements are determined, and necessary documentation is raised and packaged with the components |
| | 2.2 Any removed QEC components not requiring maintenance are correctly labelled and stored for reinstallation |
| | 2.3 Engine is installed in work stand and engine is cleaned |
| | 2.4 Engine is disassembled 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 (MSDS) and personal protective equipment (PPE) |
| | 2.5 Removed components are cleaned, tagged and inspected for serviceability in accordance with |

enterprise procedures

- 2.6 Components that are not to be reinstalled are disposed of in accordance with enterprise procedures and action is initiated to obtain replacement components
- 2.7 Components to be re-fitted are processed for detailed inspection, repair/overhaul and/or modification, as required

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 engines include:**
- The engine assembly and components that comprise a QEC unit. Engine types include all cylinder arrangements and fuel types (aviation gasoline, two stroke or diesel)
- Procedures and requirements include:**
- Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

Unit Mapping Information

Release 1 – equivalent to MEA392A Disassemble 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>