



**Australian Government**

**Assessment Requirements for MEA393  
Repair and/or overhaul aircraft piston  
engine cylinder assembly components**

**Release: 2**

# Assessment Requirements for MEA393 Repair and/or overhaul aircraft piston engine cylinder assembly components

## Modification History

Release 2. Equivalent to MEA393 Repair and/or overhaul aircraft piston engine cylinder assembly components with amended prerequisite codes.

## Performance Evidence

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria under the specified conditions of assessment, and include:

- applying relevant WHS procedures, including the use of MSDS and PPE
- using relevant maintenance documentation, specifications and aircraft/component manuals to:
  - recognise state of serviceability and overhaul or repair requirements for piston engine cylinder assembly components as listed in the Range of Conditions
  - dismantle and inspect piston engine cylinder assembly component parts for serviceability and identify repair requirements as applicable
  - repair/replace/modify piston engine cylinder assembly component parts
  - assemble, test for correct operation and adjust piston engine cylinder assembly components
- correctly tagging, sealing and packaging completed components.

Evidence of transferability of skills and knowledge related to repair is essential. This shall be demonstrated through application across a number of different piston engine cylinder assembly components. Ability to assess component serviceability and interpret parts requirements will be necessary to supplement the required evidence. Capability to interpret inspection procedures and specifications (allowable limits) and apply them in practice is critical.

## Knowledge Evidence

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- how to obtain relevant MSDS
- the use of applicable items of PPE
- WHS procedures
- component inspection and wear measurement procedures
- non-destructive testing methods and application
- component repair and overhaul procedures and processes.

## Assessment Conditions

- Competency should be assessed in the work environment, or simulated work environment, using tools and equipment specified in maintenance documentation. It is also expected that general-purpose tools and test equipment found in most routine situations would be used where appropriate.
- Knowledge of cylinder assembly operation and the relationship of individual components will be necessary to supplement evidence of ability to troubleshoot component faults before undertaking any action. The work plan should take account of applicable safety and quality requirements in accordance with the industry and regulatory standards.
- The following conditions of assessment represent the requirements of the Regulators (ADF and CASA) and maintenance stakeholders and must be rigorously observed.
- A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements and performance criteria of the unit of competency are being achieved under routine supervision on at least one (1) item from each of the following groups:
  - cylinder
  - piston and piston rings
  - piston pins
  - valves, valve rockers, valve guides, tappets, pushrods and guard tubes
  - manifold studs.
- This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide (for details refer to the Companion Volume Assessment Guidelines).
- Assessors must satisfy the requirements of the National Vocational Education and Training Regulator (Australian Skills Quality Authority, or its successors).

## Links

Companion Volume implementation guides are found in VETNet -

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