



**Australian Government**

**Assessment Requirements for MEA722  
Evaluate aircraft piston engine power  
plants**

**Release: 1**

# Assessment Requirements for MEA722 Evaluate aircraft piston engine power plants

## Modification History

Release 1 - New unit of competency

## 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 must include:
- identifying WHS, regulatory and risk management procedures, power plant design and construction principles and maintenance requirements
- determining and confirming:
  - parameters and context of tasks
  - chain of responsibility
  - personal functions and responsibilities
  - team and support functional group interdependencies and communications
  - appropriate qualifications and delegations
- appropriate support, including technical and professional assistance
- investigating associated CM and ILS requirements and drafting required data
- assessing and applying:
  - basic aircraft power plant and power plant system design procedures
  - design standards
  - regulatory requirements
  - graphics skills and techniques
- evaluating proposed modification and power plant maintenance and reliability
- reporting and documenting results of scoping, principles and techniques identification and evaluation of applications.

## 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:

- aircraft piston engine power plant and power plant system design, function and layout:
  - design standards
  - piston engine types and relative performance
  - system components and hardware
  - construction and assembly methods
  - types of propeller and their applications
- basic design principles for:

- system modifications
- repair schemes
- airworthiness regulator design standards
- compliance requirements of the WHS Act and regulations, codes of practice, standards and risk assessment
- scope of trade, technical and professional support services required in aircraft power plant applications
- management data interface with CM and ILS.

## Assessment Conditions

- This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is, the candidate is not in productive work, then a simulated working environment must be used that reflects realistic workplace situations and conditions.
- The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team.
- Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability.
- Assessment methods must be by direct observation of tasks and include questioning on underpinning knowledge to ensure its correct interpretation and application.
- Assessment may be applied under project-related conditions (real or simulated) and require evidence of process.
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances.
- Assessors must be satisfied that the candidate can competently and consistently:
  - identify and apply WHS, regulatory and risk management procedures
  - determine parameters and context of tasks, personal, team, technical and professional assistance and support, personnel functions and responsibilities, and chain of responsibility
  - investigate sustainability implications of aircraft piston engine power plants as specified in CM and/or ILS requirements
  - assess and apply basic aircraft piston engine power plant design and maintenance/repair requirements, and graphics skills and techniques
  - evaluate aircraft piston engine power plant components for compliance with WHS and airworthiness regulatory requirements
  - report and document results, including provision of CM and ILS input data.
- Assessment may be in conjunction with assessment of other units of competency where required.
- 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.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371>