



Australian Government

**Assessment Requirements for
MEAMEC0033 Apply basic aircraft power
plant design characteristics**

Release: 1

Assessment Requirements for MEAMEC0033 Apply basic aircraft power plant design characteristics

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 MEA342 Apply basic aircraft power plant design characteristics.

Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- identify the different types of aircraft power plant and their relative advantages and applications, including the following:
 - piston engine (petrol or diesel)
 - rotary
 - turboprop or gas turbine and rotor
 - turbofan
 - turbojet
- identify power plant maintenance and monitoring requirements
- identify different types of propellers and their applications, including:
 - fixed pitch
 - adjustable pitch
 - constant speed
 - contra-rotating
 - tractor
 - pusher
- select power plants for aeroplanes and rotary wing aircraft given the applicable performance characteristics.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- basic power plant characteristics
- basic propeller theory and characteristics
- use of non-destructive testing (NDT) in power plant maintenance
- power plant maintenance requirements including the use of engine condition monitoring.

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 routine supervision in the workplace or in a simulated environment that reflects workplace conditions and contingencies and is equipped to provide exposure to the relevant aircraft design characteristics and to theory of flight.

The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - tools, equipment, materials
 - documentation, workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials required to support analysing and selecting power plant on design

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.

Links

Companion Volume implementation guides are found in VETNet --

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