



Australian Government

MEAMEC0067 Test gas turbine engines and engine modules after overhaul or repair

Release: 1

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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 MEA387 Test gas turbine engines and engine modules after overhaul or repair.

Application

This unit describes the skills and knowledge required to apply hand skills and use theory knowledge and maintenance publication procedures to test run aircraft gas turbine engines and engine modules in engine test stands following overhaul or repair in workshops during the performance of scheduled or unscheduled maintenance. Testing may be performed individually or as part of a team.

This unit applies to turbojet, turbofan, turboshaft, turboprop engines and engine modules, or auxiliary power units.

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

Any other relevant legislation, industry standards and codes of practice within Australia must be applied

Pre-requisite Unit

MEAMEC0063 Repair and overhaul gas turbine engine air inlet and compressor components and modules

MEAMEC0064 Repair and overhaul gas turbine engine combustion section component and modules

MEAMEC0065 Repair and overhaul gas turbine, engine turbine and exhaust section components

MEAMEC0066 Repair and overhaul gas turbine engine ancillary section components

Competency Field

Aviation maintenance

Elements and Performance Criteria

Elements	Performance Criteria
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Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare engine or module for testing	1.1 Check maintenance documentation to confirm that engine or module is ready for testing 1.2 Assemble engine modules into a test engine, where required 1.3 Configure engine for testing in accordance with maintenance manual requirements and standard enterprise procedures
2. Install engine in test stand	2.1 Install engine in test stand in accordance with maintenance manual requirements and standard enterprise procedures while observing all relevant work health and safety (WHS) requirements, including the use of material safety data sheets (MSDSs) and items of personal protective equipment (PPE) 2.2 Check fuel, oil and fluid levels 2.3 Prepare engine test stand for operation
3. Run and test engine or module performance	3.1 Start engine and check operating parameters 3.2 Test and trim engine performance, where applicable, in accordance with maintenance manual requirements and standard enterprise procedures, and seek required supervisory guidance for complex testing and adjustments 3.3 Record engine operating parameters and test results in accordance with standard enterprise procedures
4. Remove engine from test stand	4.1 Remove engine from test stand in accordance with maintenance manual requirements and standard enterprise procedures while observing all relevant WHS requirements, including the use of MSDSs and items of PPE 4.2 Configure, inhibit and prepare serviceable engines or modules in accordance with maintenance manual requirements and standard enterprise procedures for transport or storage, and seek required supervisory guidance for complex testing and adjustments 4.3 Return unserviceable engines or modules to workshop in accordance with standard enterprise procedures for rectification or rework

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

- Reading skills to interpret testing documentation, specifications (allowable limits) and procedures.
- Writing skills to complete testing documentation.
- Numeracy skills to interpret and communicate technical information.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEA387 Test gas turbine engines and engine modules after overhaul or repair.

Links

Companion Volume implementation guides are found in VETNet –

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

Assessment Requirements for MEAMEC0067 Test gas turbine engines and engine modules after overhaul or repair

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Performance Evidence

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

- test at least one item from each of the following groups:
 - fixed or rotary wing gas turbine engine (turbojet, turbofan, turboshaft, turboprop), or auxiliary power unit
 - engine modules.
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Knowledge Evidence

There must be evidence the candidate has knowledge of:

- how to obtain relevant material safety data sheets (MSDSs)
- the use of applicable items of personal protective equipment (PPE) for testing gas turbine engines and engine modules
- work health and safety (WHS) procedures for testing gas turbine engines and engine modules
- test stand operation
- engine and module test requirements
- engine operating parameters and adjustment methods
- fuels and lubricants and their correct use.
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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 encountered in testing gas turbine engines and engine modules after overhaul or repair. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - gas turbine engines and modules and applicable engine test stand
 - tools and equipment specified in maintenance documentation.
 - general-purpose tools and test equipment found in most routine situations.
 - maintenance documentation.

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.

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