



Australian Government

MEAMEC0059 Perform mechanical elementary maintenance

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 MEA372 Perform mechanical elementary maintenance.

Application

The unit describes the skills and knowledge required by small aircraft maintenance B1 and B2 Licence holders to perform and certify mechanical elementary maintenance on small fixed and rotary wing aircraft.

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

MEA301 Perform aircraft flight servicing

Competency Field

Aviation maintenance

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Remove mechanical components	1.1 Prepare and render system safe in accordance with the applicable maintenance manual and fit isolation tags, when required, to ensure personnel safety 1.2 Carry out removal of components in accordance with approved maintenance data while observing all relevant work health and safety (WHS) procedures including the use of material safety data sheets (MSDSs) and personal protective equipment (PPE) 1.3 Compile and process required maintenance documentation relating to removal in accordance with standard enterprise procedures 1.4 Tag, seal and pack removed components in accordance with

Elements	Performance Criteria
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	specified procedures
2. Install mechanical components	2.1 Check components to be installed to confirm correct part numbers, serviceability and modification status 2.2 Carry out installation in accordance with approved maintenance data while observing all relevant WHS procedures, including the use of MSDSs and PPE 2.3 Complete and process required maintenance documentation relating to installation in accordance with standard enterprise procedures
3. Repair mechanical non-structural components	3.1 Assess the extent of damage to assist in determining repair procedure 3.2 Identify appropriate repair scheme in accordance with structural repair manual and/or approved data 3.3 Organise all required materials and equipment 3.4 Perform repairs in accordance with approved repair scheme, ensuring that standard operating procedures are used, and process requirements are carried out while observing all relevant WHS procedures, including the use of MSDSs and PPE 3.5 Clean work area of all waste material or contaminants 3.6 Complete and process required maintenance documentation relating to repairs in accordance with standard enterprise procedures

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 maintenance documentation and procedures.
- Writing skills to complete maintenance 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 MEA372 Perform mechanical elementary maintenance.

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 MEAMEC0059 Perform mechanical elementary maintenance

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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 perform mechanical elementary maintenance covering the following tasks:

- replace defective locking wire or split pins used outside of flight control systems
- remove and install passenger or crew seat safety restraints
- remove and install co-pilot control levers
- remove and install simple hose connections not requiring special tools or bench assembly (excludes hydraulic connections and engine compartment fuel and oil pressure or scavenge hose connections)
- remove and install prefabricated fuel lines
- remove and install aircraft wheels or skids, including servicing and inspection of wheel bearings and replacement of tyres
- remove and install engine cowls not requiring propeller removal or disconnection of engine controls
- remove and install non-structural passenger cabin partitions
- replace side windows in non-pressurised cabins
- remove and install spark plugs, includes cleaning and setting of gap clearance
- perform engine cylinder compression tests
- remove and install fuel and oil strainers or filter elements, includes element disassembly and cleaning, where applicable
- remove, check and install magnetic chip detectors
- remove and install doors on non-pressurised aircraft
- carry out small simple repairs to fairings, non-structural cover plates and cowlings
- carry out minor repairs to cabin trim and upholstery
- restore finish after repairs and minor touch-up of decorative coatings.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- work health and safety (WHS) procedures, including the use of personal protective equipment (PPE) and material safety data sheets (MSDSs) relating to maintenance tasks

- aircraft configuration and safety precautions associated with component removal and installation tasks listed in the Performance Evidence
- types of aircraft fabric coverings and the procedures for minor repairs classified as elementary maintenance
- aircraft composite materials and associated safety precautions
- aircraft window materials and construction
- methods of minor composite repairs classified as elementary maintenance
- methods for performing minor repairs to cabin trim and upholstery
- purpose of chip detectors and inspection requirements
- procedure for performing engine compression tests.

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 performing mechanical elementary maintenance. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - workplace procedures, manufacturing specifications, codes, standards, manuals, and reference materials relevant to performing mechanical elementary maintenance
 - tools and equipment specified in maintenance documentation.
 - general-purpose tools and test equipment found in most routine situations.

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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