Australian Government

Assessment Requirements for MEA348 Perform scheduled line maintenance activities on piston engine rotary wing aircraft

Release: 2

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Modification History

Release 2. Equivalent to MEA348 Perform scheduled line maintenance activities on piston engine rotary wing aircraft 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 must include:

- ground handling of aircraft
- using hand skills and tools to perform flight servicing activities
- correctly installing and securing of aircraft hardware
- locating, using and correctly stowing of aircraft safety and security equipment (includes ground locks, covers, support and safety devices and tie-down devices)
- applying ground power (where applicable)
- inspecting structure for damage and deterioration
- recognising of external signs of component damage, leakage and security in aircraft systems
- recognising of visual signs of damage, leakage and security with regard to engines, transmissions and rotors
- refuelling the aircraft with the correct type, quantity and distribution of fuel
- checking and replenishing fluid level using the correct fluids
- recharging of gaseous levels using the correct support equipment and procedures
- lubricating components
- checking fire protection systems (where applicable) for correct gas charge levels
- replacing role equipment requiring pre-flight replacement
- using maintenance data and manuals to determine flight servicing requirements and procedures
- applying standard procedures
- observing all relevant WHS procedures including the use of PPE and MSDS.

It is essential that the specific aspects of the aircraft flight servicing or scheduled line maintenance task are checked to ensure quality and safety standards are fully observed, understood and complied with. Safety precautions applicable to the system being maintained are to be fully observed. An understanding of system operation as it relates to the work must be demonstrated before undertaking any action.

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:

- standard trade practices relating to tool usage and installation/securing of aircraft hardware
- aircraft structural concepts and structure to the extent required to be able to recognise typical types of structural damage and deterioration during flight servicing activities and scheduled inspections up to the level of a Weekly Check or equivalent
- system layout, operation and typical external signs of faults to the extent required to perform flight servicing and scheduled inspections up to the level of a Weekly Check or equivalent
- the function of on-board maintenance systems
- types and characteristics of fuels and fuel additives
- types and characteristics of lubricants
- types and characteristics of hydraulic fluids
- WHS procedures relating to flight servicing activities, including how to obtain PPE and MSDS
- basic theory of flight relating to rotary wing aircraft, including stability and control
- piston engine basic theory, installation and operation
- factors influencing piston engine performance
- engine transmission and rotor basic theory, installation and operation
- relevant principles of mathematics and physics.

Assessment Conditions

- Competency should be assessed in the work environment or simulated work environment using procedures, tools and equipment specified in maintenance documentation. It is also expected that general-purpose tools, test and ground support equipment found in most routine situations would be used where appropriate.
- Evidence of knowledge of system operation, recognition of defects and completion of documentation, the relationship of individual components and the links with other systems will be necessary to the extent required for completion of flight servicing and scheduled line maintenance task 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 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 supervision but without intervention on the following flight servicings and scheduled line maintenance tasks that are applicable to the enterprise operating and maintenance system:
  - preparation for flight following maintenance
  - before flight servicing

  - after flight servicing
  - turn around servicing
  - scheduled line maintenance activities up to the level of a Weekly Check or specified equivalent.
- 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).
- Where the unit is to be used for CASA licensing purposes the Assessor must also meet the criteria specified in the CASR Part 147 Manual of Standards.

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371