Australian Government

Assessment Requirements for MEA252 Test, align and troubleshoot aircraft synchro and servo system components

Release: 2

Assessment Requirements for MEA252 Test, align and troubleshoot aircraft synchro and servo system components

Modification History

Release 2. Equivalent to MEA252 Test, align and troubleshoot aircraft synchro and servo system components 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:

- applying relevant WHS practices
- using approved repair procedures and processes relating to synchro and servo system components
- recognising the serviceability state and repair requirements for:
  - synchro/servo system error detection devices
  - direct current (DC) and alternating current (AC) synchronous components
  - gyroscopic instruments (mechanical, electro-mechanical, vacuum/pressure types)
  - flight control servo devices
- performing component testing to isolate/confirm faults and assessing post-repair/overhaul serviceability
- correctly aligning synchro and servo system components to prescribed specifications
- applying logic processes to isolate synchro and servo system component faults.

The underlying skills inherent in this unit should be transferable across a range of testing, aligning and troubleshooting applications (including the timely involvement of supervisors or other trades) associated with synchro and servo system components. Ability to interpret inspection and testing procedures and specifications (allowable limits) and apply them in practice is critical. It is essential that testing procedures, cleanliness requirements and safety precautions applicable to the system being maintained are fully observed, understood and complied with.

This must be demonstrated through application across a range of the synchro and servo system components listed in the Assessment Conditions that are applicable to the enterprise.

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:

- component and system operation
- the basic function and operation of synchro and servo system components to enable testing for fault isolation/confirmation and to determine repair or overhaul requirements and serviceability status post-repair or overhaul

- basic principles/functions, relating to synchro and servo system components and associated with:
  - advanced analogue fundamentals
  - synchronous systems
  - gyroscopes.

Assessment Conditions

- Competency should be assessed in the work environment or simulated work environment, using tools and equipment specified in maintenance documentation. It is also expected that general and special-purpose tools and test equipment would be used where appropriate.
- The application of testing procedures should also clearly indicate knowledge of system operation. System operation knowledge, the relationship of individual components and the links with other systems (if applicable) will be necessary to supplement evidence of ability to troubleshoot the component within the limits of the fault-finding guide 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 the Regulators (ADF and 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 routine supervision on a representative range of components applicable to the enterprise from each of:
  - synchro system components
  - servo system components.
- 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).

Links

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