



Australian Government

**Assessment Requirements for MEA302
Remove and install aircraft
hydro-mechanical and landing gear system
components**

Release: 1

Assessment Requirements for MEA302 Remove and install aircraft hydro-mechanical and landing gear system components

Modification History

Release 1 - New unit of competency

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:

- using hand skills and tools to remove and install hydraulic and fuel system components
- jacking of the aircraft as required for landing gear component removal and installation
- correctly installing and securing of aircraft hardware
- using hand skills and tools to remove and install landing gear components and the correct handling of heavy components
- using maintenance manuals to prepare the aircraft for component removal and installation and correct interpretation of removal and installation instructions
- applying standard procedures
- observing all relevant WHS procedures including the use of MSDS and relevant items of PPE.

It is essential that system cleanliness requirements and safety precautions applicable to the system being maintained are fully observed, understood and complied with.

Evidence of transferability of skills and knowledge related to removal and installation is essential. This may be demonstrated through application across a number of aircraft systems or aircraft types, but must cover a sufficient range of tasks to demonstrate familiarity with attachment methods, connection hardware and couplings peculiar to each type of system, and of safe handling of heavy components.

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
- hydraulic fluids (mineral and synthetic) and handling precautions
- hydraulic seal types and applications
- how to locate and correctly remove and install components of hydraulic systems
- aircraft fuels and handling precautions
- fuel seal types and applications
- how to locate and correctly remove and install fuel system components
- electrical circuit isolation and plug removal and installation
- how to jack the aircraft for landing gear component removal and installation
- how to locate and correctly remove and install landing gear components, including the handling of heavy components
- WHS procedures relating to hydraulic systems, fuel systems and landing gear components
- how to obtain MSDS
- the selection and use of items of PPE
- relevant maintenance manuals
- relevant regulatory requirements and standard procedures.

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 applicable general-purpose tools, test and ground support equipment found in most routine situations would be used where appropriate.
- An understanding of system operation as it relates to the work must be demonstrated 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 this unit of competency are being achieved under routine supervision on each type of system and on at least one (1) component of each group listed in the Range of Conditions, as follows:
 - hydraulic systems – preparation of a system for safe component removal and replacement of at least one (1) component from each of the following groups of components:
 - hydraulic accumulators, filters, reservoirs, valves, pumps, motors, actuators, regulators and direct reading gauges
 - rigid and flexible pipelines, hoses and fittings
 - fuel systems – preparation of a system for safe component removal and replacement of at least one (1) component from each of the following groups of components:
 - fuel system filters, valves, pumps, rigid and flexible storage cells/tanks
 - rigid and flexible pipelines, hoses and fittings
 - landing gear components – one (1) each of:
 - wheel assemblies or skids
 - brake units
 - struts/oleos.
- Coverage of brakes and struts/oleos are not required where the aircraft is rotary wing and is fitted with skids or floats.
- 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.education.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371>