



Australian Government

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

Release: 1

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

Modification History

Release 1 - New unit of competency

Application

This unit of competency is part of the Mechanical Certificate IV (Aircraft Maintenance Stream) training pathway and may also be part of a Structures Certificate IV training pathway. It requires application of hand skills and standard trade practices in the removal and installation of aircraft hydro-mechanical system and landing gear components fitted to both fixed and rotary wing aircraft during the performance of scheduled or unscheduled maintenance. Maintenance may be performed individually or as part of a team.

The unit is used in workplaces that operate under the airworthiness regulatory systems of the Australian Defence Force (ADF) and the Civil Aviation safety Authority (CASA).

Where a CASA licensing outcome is sought this unit forms part of the CASA requirement for the granting of the chosen maintenance certification licence under Civil Aviation Safety Regulation (CASR) Part 66, in accordance with the licensing provisions in the Companion Volume Implementation Guide.

Pre-requisite Unit

MEA101	Interpret work health and safety practices in aviation maintenance
MEA103	Plan and organise aviation maintenance work activity
MEA105	Apply quality standards applicable to aviation maintenance processes
MEA107	Interpret and use aviation maintenance industry manuals and specifications
MEA108	Complete aviation maintenance industry documentation
MEA109	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance

Competency Field

Aviation maintenance

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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|---|---|
| 1. Remove hydro-mechanical system components | 1.1 Hydro-mechanical system is rendered safe and prepared in accordance with the applicable maintenance manual, including fitment of isolation tags, where necessary, to ensure personal safety |
| | 1.2 Removal of hydro-mechanical components is carried out in accordance with the applicable maintenance manual while observing all relevant work health and safety (WHS) requirements, including the use of material safety data sheets (MSDS) and items of personal protective equipment (PPE) |
| | 1.3 Required maintenance documentation is accurately completed and correctly processed |
| | 1.4 Removed components are tagged, sealed and packaged in accordance with specified procedures |
| 2. Remove landing gear components | 2.1 The aircraft is jacked as specified in the maintenance manual for landing gear component removal |
| | 2.2 Removal of components is carried out in accordance with the applicable maintenance manual while observing all relevant WHS requirements, including the use of MSDS and items of PPE |
| | 2.3 Required maintenance documentation is accurately completed and correctly processed |
| | 2.4 Removed components are tagged, sealed and packaged in accordance with specified procedures |
| 3. Install hydro-mechanical system components | 3.1 Components to be installed are checked to confirm correct part numbers, serviceability and modification status |
| | 3.2 Component installation is carried out in accordance with the applicable maintenance manual while observing all relevant WHS requirements, including the use of MSDS and items of PPE |
| | 3.3 Required maintenance documentation is completed and |

- processed in accordance with standard enterprise procedures
4. Install landing gear components
- 4.1 Components to be installed are checked to confirm correct part numbers, serviceability and modification status
- 4.2 Component installation is carried out in accordance with the applicable maintenance manual while observing all relevant WHS requirements, including the use of MSDS and items of PPE
- 4.3 Required maintenance documentation is completed and processed in accordance with standard enterprise procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

- Hydro-mechanical systems include:**
- Hydraulic systems
 - Fuel systems
- Components of hydro-mechanical systems include:**
- Hydraulic accumulators, filters, reservoirs, valves, pumps, motors, actuators, regulators and direct reading gauges
 - Fuel system filters, valves, pumps, rigid and flexible storage cells/tanks
 - Rigid and flexible pipelines, hoses and fittings
- Landing gear components include:**
- Wheel assemblies or skids
 - Brake units (not applicable to rotary wing aircraft with skids or floats)
 - Struts/oleos (not applicable to rotary wing aircraft with skids or floats)
- Electrical interface includes:**
- Associated electrical loom terminations and/or plugs where components are electrically actuated or controlled
- Procedures and requirements include:**
- Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

Unit Mapping Information

Release 1 – equivalent to MEA302C Remove and install aircraft hydro-mechanical and landing gear system components

Links

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