



Australian Government

MEA508 Maintain, install and remove restraint systems

Release: 2

MEA508 Maintain, install and remove restraint systems

Modification History

Release 2. Equivalent to MEA508 Maintain, install and remove restraint systems with amended prerequisite codes.

Application

This unit of competency requires application of skills and knowledge relating to the maintenance, installation and removal of personal restraint systems. Maintenance may be performed in-situ or in a maintenance workshop and involves inspection, fault diagnosis, replacement of parts, completion of repairs and cleaning during the performance of scheduled or unscheduled maintenance. Maintenance may be performed individually or as part of a team.

The unit applies to a range of personal restraint systems.

The unit is part of the Aeroskills Life Support and Furnishing Certificate III and IV training pathways. It is used in workplaces that operate under the airworthiness regulatory systems of the Australian Defence Force (ADF) and the Civil Aviation Safety Authority (CASA).

Pre-requisite Unit

MEA107	Interpret and use aviation maintenance industry manuals and specifications
MEA118	Conduct self in the aviation maintenance environment
MEA154	Apply work health and safety practices in aviation maintenance
MEA155	Plan and organise aviation maintenance work activities
MEA156	Apply quality standards during aviation maintenance activities
MEA157	Complete aviation maintenance industry documentation
MEA158	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance
MEA511	Operate and maintain sewing and overlocking machines
MSFSF2002	Machine sew materials

Competency Field

Aircraft life support

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.																
1. Maintain restraint belts/harnesses	<table><tr><td>1.1</td><td>Restraint belts/harnesses are inspected for serviceability in accordance with standard procedures</td></tr><tr><td>1.2</td><td>Identified faults beyond own authority to rectify are reported to supervisor and faulty restraint system is quarantined</td></tr><tr><td>1.3</td><td>Unserviceable parts of a quick release fitting are inspected, tested and replaced</td></tr><tr><td>1.4</td><td>Unserviceable parts of the restraint belts/harnesses are replaced to render restraint system serviceable in accordance with standard procedures 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)</td></tr><tr><td>1.5</td><td>Basic restraint belt/harness stitching repairs are completed in accordance with standard procedures</td></tr><tr><td>1.6</td><td>Restraint belts/harnesses are cleaned in accordance with standard procedures</td></tr><tr><td>1.7</td><td>Restraint belts/harnesses are presented for inspection by supervisor in accordance with standard procedures</td></tr><tr><td>1.8</td><td>Maintenance documentation is completed and processed in accordance with standard enterprise procedures</td></tr></table>	1.1	Restraint belts/harnesses are inspected for serviceability in accordance with standard procedures	1.2	Identified faults beyond own authority to rectify are reported to supervisor and faulty restraint system is quarantined	1.3	Unserviceable parts of a quick release fitting are inspected, tested and replaced	1.4	Unserviceable parts of the restraint belts/harnesses are replaced to render restraint system serviceable in accordance with standard procedures 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)	1.5	Basic restraint belt/harness stitching repairs are completed in accordance with standard procedures	1.6	Restraint belts/harnesses are cleaned in accordance with standard procedures	1.7	Restraint belts/harnesses are presented for inspection by supervisor in accordance with standard procedures	1.8	Maintenance documentation is completed and processed in accordance with standard enterprise procedures
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2. Remove restraint systems	<table><tr><td>2.1</td><td>Approval to remove restraint system is obtained in accordance with standard enterprise procedures</td></tr><tr><td>2.2</td><td>Restraint system is removed from the aircraft in accordance with applicable maintenance publication</td></tr></table>	2.1	Approval to remove restraint system is obtained in accordance with standard enterprise procedures	2.2	Restraint system is removed from the aircraft in accordance with applicable maintenance publication												
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	2.3	Maintenance documentation is completed and processed in accordance with standard enterprise procedures
3. Install restraint systems	3.1	Approval to fit restraint system is obtained in accordance with standard enterprise procedures
	3.2	Restraint system is fitted to the aircraft in accordance with applicable maintenance publication
	3.3	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.

Restraint belts/harnesses include:

- Fixed point attached harness
- Passenger restraint belts
- Retractable restraint harnesses (will be attached to inertia reel but the inertia reel does not form part of the restraint system)

Standard procedures are found in any or all of:

- Commonwealth/state/territory WHS legislation, regulations and codes
- Australian Standards
- Equipment manufacturers' specifications and procedures
- Industry practices
- Safety manuals
- Maintenance schedules
- Work instructions
- Maintenance organisation manuals
- MSDS
- Defence regulations and instructions
- Civil Aviation Safety Regulations (CASRs) and

	advisory material
Faults include:	• Standing instructions
	• Broken quick release fitting springs
	• Broken stitching
	• Contamination
	• Corrosion of metal parts
	• Damaged hardware
	• Damaged quick release fitting screws
	• Excessive wear
	• Expired date of restraint components
	• Incorrect manufacture
	• Pulled threads
	• Seized quick release fitting lugs
	• Ultraviolet (UV) degradation
Parts include:	• Belt
	• Fixed point attachment line
	• Hardware (e.g. buckles)
	• Harness
	• Parachute housing (e.g. pack)
	• Quick release fittings including lugs, springs and screws

Unit Mapping Information

Release 2. Equivalent to MEA508 Maintain, install and remove restraint systems

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 MEA508 Maintain, install and remove restraint systems

Modification History

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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 WHS practices relating to restraint system maintenance processes, including the selection and correct use of PPE, where applicable
- handling, storing and organising transport of equipment
- using MSDS
- using maintenance publications, drawings and documentation relating to restraint system maintenance
- using applicable testing and measuring equipment, tools and maintenance documentation to:
 - replace unserviceable components in accordance with approved procedures
 - select and use appropriate restraint system cleaning materials
 - repair restraint systems (both hand and machine sewing)
- cleaning and maintenance of equipment and tools.

The underlying skills inherent in this unit should be transferable across a range of aircraft life support equipment maintenance activities. It is essential that restraint system inspection procedures, cleanliness requirements, repair procedures and safety precautions are fully observed, understood and complied with. Ability to interpret maintenance, installation and removal procedures and apply them in practice is critical.

This is to be demonstrated through demonstration of the ability to recognise faults, replace components and perform appropriate repairs that are within the bounds of the individual's authority, and through the demonstration of correct installation and removal procedures.

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:

- relevant regulations, standards, enterprise procedures and maintenance publications
- WHS procedures relating to restraint system maintenance, including the selection and use of PPE
- how to obtain MSDS
- critical nature of maintaining and fitting restraint systems

- approved cleaning methods for aviation life support equipment
- components of a restraint system and their function
- flight line procedures
- ultraviolet (UV) degradation
- types of corrosion and contamination that may affect restraint systems
- handling, storage and transit procedures relating to life support equipment
- modification requirements for restraint systems
- operation of testing and measuring equipment and tools used to maintain restraint systems
- repair limitations for restraint systems.

Assessment Conditions

- Competency should be assessed in the workplace or simulated workplace using materials, tools and equipment specified in the maintenance manuals and applicable procedures. It is also expected that general and special-purpose tools and ground support equipment would be used where appropriate.
- 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 the inspection, repair, installation and removal of restraint systems, including the demonstration of the ability to recognise a range of faults and their serviceability and repair limitations/tolerances (must include verification of expiry dates of restraint system component parts and recognition of incorrect manufacture).
- 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).

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