



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **MEA508A Maintain, install and remove restraint systems**

**Revision Number: 2**

## **MEA508A Maintain, install and remove restraint systems**

### **Modification History**

Minor formatting and editorial changes made. Prerequisite unit version code updated. Unit version code updated in unit descriptor.

### **Unit Descriptor**

This unit of competency is part of the Aeroskills Life Support and Furnishing Certificate III and IV training pathways. It covers the competencies required to maintain, install and remove personal restraint systems. Maintenance includes inspecting, isolating faults, replacing components, repairing and cleaning prior to returning the item to service. This unit is used in workplaces that operate under the airworthiness regulatory systems of the ADF and CASA.

This unit is equivalent to PUADEFSL008B Maintain, install and remove restraint systems.

### **Application of the Unit**

This unit 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.

The unit applies to a range of personal restraint systems.

### **Licensing/Regulatory Information**

Not applicable.

## Pre-Requisites

MEA101B	Interpret occupational health and safety practices in aviation maintenance
MEA103B	Plan and organise aviation maintenance work activity
MEA105C	Apply quality standards applicable to aviation maintenance processes
MEA107B	Interpret and use aviation maintenance industry manuals and specifications
MEA108B	Complete aviation maintenance industry documentation
MEA109B	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance
MEA511A	Operate and maintain sewing and overlocking machines
LMFSF2002B	Machine sew materials

## Employability Skills Information

This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

1. Maintain restraint belts/harnesses
  - 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
  - 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
2. Remove restraint systems
  - 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
  - 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

## Required Skills and Knowledge

### Required skills

Look for evidence that confirms skills in:

- applying OHS 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 maintaining equipment and tools

### Required knowledge

Look for evidence that confirms knowledge of:

- relevant regulations, standards, enterprise procedures and maintenance publications
- OHS 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
- 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

## Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

<p><b>Overview of assessment</b></p>	<p>A person who demonstrates competency in this unit must be able to maintain, install and remove restraint systems while observing all relevant safety precautions.</p>
<p><b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b></p>	<p>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.</p> <p>Evidence of transferability of skills and knowledge related to restraint system maintenance, installation and removal is essential. 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. The work plan should take account of applicable safety and quality requirements in accordance with the industry and regulatory standards.</p> <p>A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements 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.</p>
<p><b>Context of and specific resources for assessment</b></p>	<p>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</p>

	special purpose tools and ground support equipment would be used where appropriate.
<b>Method of assessment</b>	
<b>Guidance information for assessment</b>	

## Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<b>Restraint belts/harnesses</b>	Restraint belts/harnesses may include: <ul style="list-style-type: none"> <li>• fixed point attached harness</li> <li>• passenger restraint belts</li> <li>• retractable restraint harnesses (will be attached to inertia reel but the inertia reel does not form part of the restraint system)</li> </ul>
<b>Standard procedures</b>	Standard procedures may be found in any or all of: <ul style="list-style-type: none"> <li>• state/territory/Commonwealth OHS legislation, regulations and codes</li> <li>• Australian Standards</li> <li>• equipment manufacturers' specifications and procedures</li> <li>• industry practices</li> <li>• safety manual</li> <li>• maintenance schedules</li> <li>• work instructions</li> <li>• maintenance organisation manual</li> <li>• MSDS</li> <li>• Defence regulations and instructions</li> <li>• CASR and advisory material</li> <li>• standing instructions</li> </ul>
<b>Faults</b>	Faults may include: <ul style="list-style-type: none"> <li>• broken quick release fitting springs</li> <li>• broken stitching</li> <li>• contamination</li> <li>• corrosion of metal parts</li> <li>• damaged hardware</li> <li>• damaged quick release fitting screws</li> <li>• excessive wear</li> <li>• expired date of restraint components</li> <li>• incorrect manufacture</li> <li>• pulled threads</li> <li>• seized quick release fitting lugs</li> <li>• UV degradation</li> </ul>



<b>Parts</b>	Parts of the restraint belts/harnesses may include: <ul style="list-style-type: none"><li>• belt</li><li>• fixed point attachment line</li><li>• hardware (e.g. buckles)</li><li>• harness</li><li>• parachute housing (e.g. pack)</li><li>• quick release fittings, including lugs, springs and screws</li></ul>
<b>Application</b>	Application of this unit may relate to: <ul style="list-style-type: none"><li>• scheduled or unscheduled maintenance activities</li><li>• individual or team-related activities</li></ul>

## Unit Sector(s)

Aircraft life support

## Competency field

## Co-requisite units

MEA118A          Conduct self in the aviation maintenance environment