



**Australian Government**

# **MEALSU0007 Maintain, install and remove restraint systems**

**Release: 1**

# MEALSU0007 Maintain, install and remove restraint systems

## Modification History

Release 1. Application changed. Elements and Performance Criteria changed. Foundation Skills made explicit. Range of Conditions removed, and relevant information moved to Assessment Requirements. Assessment Requirements clarified. Supersedes and is equivalent to MEA508 Maintain, install and remove restraint systems.

## Application

This unit describes the skills and knowledge to maintain, install and remove personal restraint systems. Maintenance may be performed in-situ or in a maintenance workshop and involves inspection, fault diagnosis, parts replacement, repairs completion and cleaning during scheduled or unscheduled maintenance. Work may be performed individually or as part of a team.

The unit applies to a range of personal restraint systems.

The unit is used in workplaces that operate under the airworthiness regulatory systems of the Civil Aviation Safety Authority (CASA) and the Defence Aviation Safety Authority (DASA).

Any other relevant legislation, industry standards and codes of practice within Australia must be applied.

## 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

MEALSU0010 Operate and maintain sewing machines and overlockers

MSFSF2002 Machine sew materials

## Competency Field

Aircraft life support

## Elements and Performance Criteria

| Elements | Performance Criteria |
|----------|----------------------|
|----------|----------------------|

| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Maintain restraint belts or harnesses  | <p>1.1 Inspect restraint belts or harnesses for serviceability in accordance with standard procedures</p> <p>1.2 Report identified faults beyond own authority to rectify to supervisor, and quarantine faulty restraint system</p> <p>1.3 Inspect, test and replace unserviceable parts of a quick release fitting</p> <p>1.4 Replace unserviceable parts of the restraint belts or harnesses 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 (MSDSs) and items of personal protective equipment (PPE)</p> <p>1.5 Complete basic restraint belt or harness stitching repairs in accordance with standard procedures</p> <p>1.6 Clean restraint belts or harnesses in accordance with standard procedures</p> <p>1.7 Present restraint belts or harnesses for inspection by supervisor in accordance with standard procedures</p> <p>1.8 Complete and process maintenance documentation in accordance with standard enterprise procedures</p> <p>1.9 Clean and perform required maintenance on equipment and tools used in accordance with standard enterprise procedures</p> |
| 2. Remove restraint systems               | <p>2.1 Obtain approval to remove restraint system in accordance with standard enterprise procedures</p> <p>2.2 Remove restraint system from aircraft in accordance with maintenance publications</p> <p>2.3 Complete and process removal-related maintenance documentation in accordance with standard enterprise procedures</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 3. Install restraint systems              | <p>3.1 Obtain approval to fit restraint system in accordance with standard enterprise procedures</p> <p>3.2 Fit restraint system to aircraft in accordance with applicable maintenance publication</p> <p>3.3 Complete and process maintenance documentation in accordance with standard enterprise procedures</p> <p>3.4 Clean and perform required maintenance on equipment and tools used in accordance with standard enterprise procedures</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

## Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria:

- Reading skills to interpret a wide range of procedures and manuals.
- Numeracy skills to interpret technical information including drawings.
- Writing and oral communication skills to complete documentation.

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

## Unit Mapping Information

Release 1. Supersedes and is 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 MEALSU0007 Maintain, install and remove restraint systems

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## Performance Evidence

There must be evidence the candidate has completed all the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- inspect, repair, install and remove at least one restraint system (fixed point attached harness, passenger restraint belt, retractable restraint harness) during scheduled or unscheduled maintenance, and including the following:
  - recognise one or more faults from each of the following groups, and their serviceability and repair limitations/tolerances:
    - 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
- for the systems being maintained:
  - verify expiry dates of restraint system component parts
  - demonstrate both hand and machine sewing techniques at least once
  - apply repair and inspection procedures, cleanliness requirements and safety precautions at all times.
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## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- relevant enterprise procedures and maintenance publications, including:

- equipment manufacturers' specifications and procedures
- industry practices
- safety manuals
- maintenance schedules
- work instructions
- maintenance organisation manuals
- standing instructions
- Commonwealth, state and territory work health and safety (WHS) legislation, regulations, codes and procedures for oxygen mask maintenance
- Australian Standards for restraint systems
- relevant Defence Aviation Safety Authority (DASA) and Civil Aviation Safety Authority (CASA) regulations and instructions
- WHS procedures for restraint system maintenance, including the selection and use of personal protective equipment (PPE)
- how to obtain and use material safety data sheets (MSDSs)
- types of restraint system:
  - fixed point attached harnesses
  - passenger restraint belts
  - retractable restraint harnesses (will be attached to inertia reel but the inertia reel does not form part of the restraint system)
- critical nature of maintaining and fitting restraint systems
- approved cleaning methods for aviation life support equipment
- components of a restraint system and their function, including:
  - belt
  - fixed point attachment line
  - hardware (e.g. buckles)
  - harness
  - parachute housing (e.g. pack)
  - quick release fittings including lugs, springs and screws
- flight line procedures
- typical faults that may affect restraint systems, including:
  - 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
- 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

The following conditions of assessment represent the requirements of the regulators (DASA and CASA) and maintenance stakeholders and must be rigorously observed.

Skills must have been demonstrated under routine supervision in the workplace or in a simulated environment that reflects workplace conditions and contingencies encountered in maintaining, installing and removing restraint systems. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - workplace procedures, manufacturing specifications, codes, standards, manuals, and reference materials relevant to maintaining, installing and removing restraint systems
  - materials, tools and equipment specified in the maintenance manuals and applicable procedures
  - general- and special-purpose tools and items of ground support equipment required for maintaining, installing and removing restraint systems.

Evidence of tasks demonstrating competency must be recorded in a log of industrial experience and achievement.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

## Links

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