



Australian Government

MEALSU0004 Maintain and fit oxygen masks

Release: 1

MEALSU0004 Maintain and fit oxygen masks

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 MEA504 Maintain and fit oxygen masks.

Application

This unit describes the skills and knowledge required to maintain and fit oxygen masks worn by aircrew. Maintenance involves inspection, testing, fault diagnosis, parts replacement, cleaning and functional testing. Work may be performed individually or as part of a team. Fitting involves adjusting the oxygen mask to correctly fit an individual (oxygen masks are not issued off-the-shelf).

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

MEA295 Use electrical test equipment to perform basic electrical tests on aircraft and components

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.

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1. Maintain oxygen mask	1.1 Inspect oxygen mask for serviceability in accordance with standard procedures 1.2 Test oxygen mask for serviceability in accordance with standard procedures and manufacturer's specifications 1.3 Report identified faults beyond own authority to rectify to supervisor and quarantine faulty oxygen mask 1.4 Replace unserviceable parts of the oxygen mask in accordance with standards 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 Test communication system components in accordance with standard procedures 1.6 Clean oxygen mask in accordance with standard procedures 1.7 Present oxygen mask for inspection by supervisor in accordance with standard procedures 1.8 Complete and process maintenance documentation in accordance with standard enterprise procedures
2. Fit oxygen mask	2.1 Explain fitting process to participant to achieve optimal fit 2.2 Measure participant to select appropriate size oxygen mask based on available information 2.3 Adjust components of oxygen mask to optimise fit 2.4 Confirm integration of oxygen mask and helmet for correct function during operations 2.5 Verify oxygen mask fit from participant and supervisory feedback 2.6 Complete and process relevant fitting-related documentation in accordance with standard enterprise procedures

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.

- Writing and oral communication skills to explain the fitting process and 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 MEA504 Maintain and fit oxygen masks.

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 MEALSU0004 Maintain and fit oxygen masks

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Performance Evidence

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

- maintain at least three unserviceable oxygen masks, covering a representative range of maintenance tasks, and correctly fit oxygen masks to at least three individuals by adjusting the retention system (e.g. strap) and seals
- use applicable tools, testing and measuring equipment and maintenance documentation for the tasks above
- solder at least three oxygen mask electronic and electrical components
- safely use the oxygen test rig during testing operations
- correctly dispose of hazardous waste during parts replacement activities
- apply procedures, cleanliness requirements and safety precautions at all times and as relevant to the maintenance and fitting tasks being performed above.
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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 oxygen masks
- relevant Defence Aviation Safety Authority (DASA) regulations and instructions
- how to obtain and apply material safety data sheets (MSDSs)
- safety precautions relating to oxygen and the operation of the oxygen test rig

- requirements for an oxygen mask servicing facility
- oxygen in flight
- components of an oxygen mask and their function, including:
 - communication system (e.g. microphone)
 - delivery tube
 - exo-skeleton (e.g. outer shell)
 - face piece (e.g. trimming)
 - retention system (e.g. strap)
 - valves
- oxygen mask operation in relation to flight
- oxygen regulator operation
- physiological effects of flight
- hypoxia
- critical nature of maintaining and fitting oxygen masks
- need to regularly assess correct fitment of oxygen masks
- oxygen mask fitting procedures
- procedures for fitting oxygen masks to helmets
- G forces
- forces of ejection
- basic electrical principles
- environmental conditions that may affect oxygen equipment
- approved cleaning methods for aviation life support equipment
- handling, storage and transit procedures relating to life support equipment
- handling and storage procedures for oxygen masks
- typical faults that may affect oxygen masks, including:
 - contamination
 - corrosion
 - cracks
 - excessive wearing
 - fraying
 - incorrect manufacture
 - intermittent communication
 - leaks
 - perishing
- modification requirements for oxygen masks
- oxygen mask repair procedures and limitations
- soldering techniques for mask components
- operation of testing and measuring equipment and tools used to maintain oxygen masks
- use and storage of adhesives.
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Assessment Conditions

The following conditions of assessment represent the requirements of the regulators DASA and Civil Aviation Safety Authority (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 and fitting oxygen masks. 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 and fitting oxygen masks
 - 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 and fitting oxygen masks.

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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