



Australian Government

MEALSU0010 Operate and maintain sewing machines and overlockers

Release: 1

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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 MEA511 Operate and maintain sewing machines and overlockers.

Application

This unit describes the skills and knowledge required to operate and maintain sewing machines and overlockers used to maintain items of aircraft life support equipment and to fabricate and maintain aircraft soft furnishings items.

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.

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. Plan work and prepare work area	1.1 Plan work and implement work plan to maximise safety and productivity 1.2 Clear and clean work area to provide worktable free of obstructions and clear access to sewing or overlocking machine 1.3 Establish and maintain safe working environment in accordance with standard enterprise procedures 1.4 Identify required electrical power outlets 1.5 Obtain required assistance to move and position work piece
2. Select thread and needle	2.1 Determine type of material to be sewn, type of stitch to be used and end-use of finished product to assist in selecting thread and needle 2.2 Select suitable thread, considering thread material, diameter of

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Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	thread, tensile strength and colour 2.3 Choose needle to suit type of thread, type of stitch and material to be sewn
3. Set up machine	3.1 Examine machine for damage, missing components or other defects 3.2 Examine power cords for knots, unsafe routing and insulation damage 3.3 Safely connect machine to power and follow 'power-on' procedure 3.4 Ensure needle is sharp, clean and free from rust and dirt 3.5 Fit needle is fitted to machine in accordance with machine instructions 3.6 Thread machine and check thread for free travel from spool 3.7 Check and adjust thread tension and other machine settings, using test pieces if necessary, to ensure correct output
4. Operate machine	4.1 Correctly align work piece to machine 4.2 Operate machine in accordance with standard procedures while observing all relevant work health and safety (WHS) requirements 4.3 Correctly feed work piece into machine 4.4 Monitor performance of machine by regularly checking thread tension and other settings and inspecting stitching in finished product
5. Inspection, quality, labelling and documentation	5.1 Remove work piece from machine using any required assistance 5.2 Inspect completed work to verify that it meets technical instructions 5.3 Identify and mark any areas in need of rework or rectification to meet requirements 5.4 Perform required rework or arrange for other required rectification action 5.5 Label or tag completed product and complete required documentation in accordance with standard enterprise procedures
6. Clean up and maintain equipment	6.1 Switch off machine using 'power-off' procedures 6.2 Clean machine and perform programmed maintenance that is within the province of the operator, in accordance with enterprise requirements and manufacturer's specifications, while observing all relevant WHS requirements, including the use of material safety data sheets (MSDSs) 6.3 Dispose of worn or damaged needles in accordance with safe

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	working practice 6.4 Notify supervisor of any abnormal conditions requiring maintenance or repair in accordance with maintenance 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 maintenance manuals, information and instructions.
- Writing and oral communication skills to complete maintenance documentation, communicate the work plan, transfer information, complete standard forms, and record and report work outcomes
- Numeracy skills to interpret technical information.

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 MEA511 Operate and maintain sewing machines and overlockers.

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 MEALSU0010 Operate and maintain sewing machines and overlockers

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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:

- operate and maintain at least one sewing machine and at least one overlocker on at least four occasions on a typical range of sewing and overlocking requirements performed at the enterprise
- during machine cleaning and maintenance:
 - use relevant hand and power tools
 - use relevant chemicals and cleaning agents and dispose of waste products
- apply manufacturing, repair and alteration procedures and safety precautions at all times and as relevant to the operations and maintenance being performed above.

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 sewing and overlocking aircraft-related soft furnishings
- Australian Standards for sewing and overlocking operations and maintenance
- relevant Defence Aviation Safety Authority (DASA) and Civil Aviation Safety Authority (CASA) regulations and instructions
- how to locate and interpret sources of technical instructions, including:
 - aircraft operational requirements
 - job orders

- manufacturers' specifications
- maintenance manuals
- modification instructions
- technical drawings
- advanced work piece construction principles and methods
- characteristics of a wide range of materials used in aircraft life support and furnishing
- operating principles of a wide range of sewing and overlocking machines
- types of needles and threads and their applications
- types of stitching and their applications
- standard industry practice for needle storage and safe disposal
- the range of sewing and overlocking machines, hand tools and power tools used in sewing and overlocking processes and their appropriateness for particular applications
- relevant quality standards for sewn and overlocked products
- power sources, such as single-phase, three-phase and weather-protected outlets
- electrical isolation procedures for sewing and overlocking machines
- safety and environmental requirements of relevant industry and enterprise procedures
- general housekeeping policies and procedures
- recording and reporting procedures.

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 operating and maintaining sewing machines and overlockers for aircraft life support equipment and aircraft soft furnishings. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - information on specifications of materials used in sewing and overlocking, settings for machines, relevant safety procedures and regulations, quality standards, and enterprise procedures
 - all necessary facilities, sewing and overlocking machines and associated hand and power tools

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.

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