



Australian Government

MSTTX3014 Set up, adjust and maintain industrial sewing machines

Release: 1

MSTTX3014 Set up, adjust and maintain industrial sewing machines

Modification History

Release 1. Supersedes and is equivalent to MSTTX3003 Set up, adjust and maintain industrial sewing machines.

Application

This unit of competency describes the skills and knowledge required to set up industrial sewing machines for production, conducting sample runs, problem solving, repair, adjustment, preventative routine maintenance and testing of machines to ensure efficient working order. It does not include skills associated with general engineering (fitting), electrical and electronic systems, and fluid power systems.

This unit applies to operators who use discretion and judgement in planning and selecting processes, procedures or outcomes. They may be using operator controlled single station industrial sewing machines and high volume automatic and manually operated hem, selvedge and embroidery sewing machines.

Areas of work may include automotive trimming, blinds and awnings, clothing manufacture, leatherwork, marine trimming, sailmaking, upholstery or specialised textile manufacture.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

Nil.

Competency Field

Textile production

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to set up, adjust and maintain industrial sewing machines	1.1 Identify job requirements from work documentation 1.2 Identify and comply with work health and safety requirements in accordance with workplace procedures 1.3 Interpret machine manufacturer specifications and work description to determine optimum sewing machine settings for product and operator

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Select, prepare and use tools appropriate for the machine and task to set up machine for operation 1.5 Set up machine and attachments according to required specifications and to run at optimum quality and efficiency levels 1.6 Identify and act on opportunities to minimise waste in sewing operations 1.7 Thread and check needles and set tension for planned sewing operations 1.8 Check lubrication prior to operation and instruct sewing machine operators of any special operating requirements
2. Test industrial sewing machine settings	2.1 Operate sewing machine according to manufacturer and workplace instructions to test settings against specifications and operational standards 2.2 Examine sewn product or sample to confirm desired sewing motion and stitch is achieved, and identify any adjustments needed to machine settings 2.3 Identify and document adjustments and adjust machine settings accordingly
3. Diagnose industrial sewing problems	3.1 Monitor industrial sewing machine operation for efficiency, safety and compliance with workplace procedures 3.2 Identify sewing faults through direct inspection of sewn products or communication with operator 3.3 Analyse problems and faults to determine root cause and determine strategy for rectification
4. Fix machine and communicate outcomes	4.1 Make repairs and adjustments to return sewing machine to optimal performance in accordance with manufacturer instructions 4.2 Test sewing machine and produce sample to ensure problems have been fixed 4.3 Maintain accurate records and prepare reports in accordance with workplace requirements 4.4 Document required adjustments to machines, patterns or templates and communicate to appropriate personnel 4.5 Accurately update operational instructions in accordance with workplace requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

- Numeracy skills to:
 - interpret numerical information on machines, in job requirements and manufacturer specifications
 - manipulate machine settings
 - measure and compare work against production and quality requirements
- Oral communication skills to liaise with operators about machine performance and quality requirements
- Reading skills to interpret job requirements, workplace procedures and manufacturer instructions
- Writing skills to:
 - complete production records and machine reports
 - amend operational instructions

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 MSTTX3003 Set up, adjust and maintain industrial sewing machines.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a203ec5c-de7d-406b-b3e1-8f1a9b76e92e>

Assessment Requirements for MSTTX3014 Set up, adjust and maintain industrial sewing machines

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Performance Evidence

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

- set up sewing machines and completed sample runs for 3 different products, with all of the following to be included in any combination:
 - interpretation of 3 different patterns, templates or job specifications
 - set up and operation of 2 different industrial sewing machines
 - 2 different types of stitching
 - 2 different fabrics of varying weights
 - 2 different seams types
 - hemming
- determined root cause and implemented rectification strategy for 3 different sewing faults.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- features, set-up and operating requirements of two types of industrial sewing machines, including machine manufacturer specifications, different settings and adjustment methods
- types of machines and their stitching capabilities
- sewing methods and types of sewing operations, stitches, fabrics and knit effects used in textile products
- seam types for various types of textiles
- characteristics of threads used and their application in different types of textile products
- how to interpret patterns or templates and product specifications
- factors affecting machine performance, including:
 - ambient conditions
 - dust and other contaminants
 - lubrication
 - thread strength
 - needle condition
 - operator skill
- types of sewing faults, their typical causes and how to rectify
- existence of any Australian Standards requirements for materials or products being sewn

- workplace practices and procedures for:
 - quality assurance
 - recording and reporting of information
 - identification and rectification of problems
 - safety and hazard control, including use of product-specific personal protective equipment (PPE) and manual handling
 - waste management and sustainability.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - industrial sewing machines (minimum 2 types)
 - textile products to be sewn
 - work specifications
 - workplace procedures.

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

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