



Australian Government

**Assessment Requirements for MSTTX3012
Identify and deal with mechanical and low
voltage electrical faults in textile machinery**

Release: 1

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Modification History

Release 1. New Unit supersedes the following units:

- LMTTX3018A Undertake electronic fault finding on textile machinery
- LMTTX3019A Identify and correct mechanical faults in looms and other weaving equipment

Not equivalent

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria, and include:

- reading and following work instructions, standard operating procedures (SOPs), safe work practices
- applying relevant standards
- correctly interpreting production specifications, schematics and manufacturer instructions of identified machinery
- using appropriate hand and power tools and test equipment
- fault-finding in low voltage electronic circuit and components
- identifying mechanical faults and determining appropriate repair strategies
- dismantling, repairing and/or replacing mechanical components of textile equipment according to manufacturer specifications and workplace procedures on at least two (2) occasions
- using test equipment to determine whether faults are electronic
- assessing and repairing wiring faults according to workplace procedures on at least two (2) occasions
- dismantling, replacing or adjusting electronic components of textile equipment according to manufacturer specifications and workplace procedures on at least two (2) occasions
- performing sample runs and analysing results to determine if equipment is working correctly
- identifying and making appropriate readjustments to electronic controls and systems
- undertaking or scheduling machine overhaul or reconditioning
- applying workplace procedures
- maintaining accurate records.

Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)

- relevant Australian Standards
- textile machinery:
 - spinning
 - carding
 - tufting
 - winding
 - weaving
 - knitting
 - dyeing
 - sewing
 - finishing
 - packing
- role and relationship of electronic components found in textile machinery input devices, programmable logic controllers (PLCs), computers and other processors, display devices, sensors, timers, cables and wiring, cable harnesses, control systems and loom operation
- textile terminology and textile processes
- setting up and adjustment requirements for the textile equipment in the enterprise and the range of textiles or garments produced
- machine components and maintenance schedule
- mechanical and electrical tools and equipment:
 - hand and power tools
 - analogue and digital measuring equipment
 - grinders
 - analogue and digital electronic measuring equipment
 - mechanical measuring equipment and gauges
- quality requirements for the enterprise and product
- equipment manufacturer specifications
- work health and safety (WHS) and environmental requirements for enterprise activities
- workplace procedures and reporting processes
- fibre and yarn characteristics affecting machine performance, for example, yarn strength, sizing, ambient conditions and count
- faults that are caused by electronic equipment, such as control systems and sensors
- operation of identified spinning, tufting, carding, knitting, sewing, dyeing, finishing and ancillary equipment
- workplace procedures
- recording and reporting practices.

Assessment Conditions

- Assessors must:
 - satisfy the assessor competency requirements that are in place at the time of the assessment, as set by the VET regulator

- have vocational competency in Identifying and dealing with mechanical and low voltage electrical faults in textile machinery, at least to the level being assessed, with relevant industry knowledge and experience.
- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.

Links

Companion Volume implementation guides are found in VETNet -

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