



Australian Government

Department of Education, Employment and Workplace Relations

LMTTX3006B Ensure efficient operation of textile machines

Revision Number: 1

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Modification History

Not applicable.

Unit Descriptor

Unit descriptor This unit covers the skills and knowledge to ensure efficient operation of textile machines.

Application of the Unit

Application of the Unit

The unit applies to the routine monitoring, problem solving and maintenance of machines and equipment used in the textile industry.

It involves working with discretion, judgement, and initiative on the job in own work, and may include liaison with specialist technicians including mechanics and technicians and production supervisors.

The application of machine fault diagnosis is within the competency and scope of the operator. The unit does not cover complex problems requiring a textile mechanic.

Work conducted in a variety of environments, such as:

- operational workplace activities
- restricted space
- hazardous, controlled or exposed conditions

Work may be conducted in small to large scale enterprises and may involve individual and team related activities.

The application of this unit is in accordance with OHS practices of the enterprise and workplace practices, which may include:

- requirements prescribed by legislation, awards, agreements and conditions of employment
- standard operating procedures
- work instructions
- oral, written and visual communication
- quality practices, including responsibility for maintenance of own work quality and contribution to quality improvement of team or section output
- housekeeping
- tasks related to environmental protection, waste disposal, pollution control, and recycling

This unit requires skills in planning and organising, initiative and enterprise and problem solving in order to examine machine performance and identify and undertake necessary steps to ensure efficient operation. Teamwork and communication skills are required to gather necessary information. Self management and learning skills are applied in reviewing own process to ensure outcomes are efficient and safe and optimise machine performance.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

Employability Skills Information

Employability Skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Check machine performance	1.1 Machine performance is monitored and reviewed and adjustments made as required, in accordance with manufacturer specifications and OHS practices. 1.2 Machine operations and processes are monitored to ensure correct procedures are assessed and product meets quality standards. 1.3 Machine operator is consulted to assess machine operations and processes. 1.4 Records and documentation of machine performance and maintenance are maintained.
2 Identify problems with machine operation	2.1 Symptoms of machinery fault are identified. 2.2 Visual inspection of machine and product is used to locate fault. 2.3 Fault is located within section or component of machine. 2.4 Operating manuals or documentation are referred to as required.
3 Determine problem cause and solution	3.1 Possible causes of problem are determined. 3.2 Further information is gathered to confirm or eliminate possible cause. 3.3 Appropriate personnel are consulted to confirm cause. 3.4 Immediate solution is determined and trialled or implemented. 3.5 Permanent solution is determined in consultation with appropriate personnel.
4 Conduct routine checks of performance efficiency	4.1 Routine checks of machine performance are assessed against production specifications in accordance with manufacturer instructions. 4.2 Preventative maintenance strategy for machine is checked and assessed in accordance with manufacturer instructions. 4.3 Periodic servicing such as lubrication and greasing, etc. is assessed in accordance with manufacturer instructions as required. 4.4 Machine is cleaned in accordance with manufacturer cleaning instructions.
5 Perform preventative maintenance procedures	5.1 Inspection of parts is conducted according to operating procedures and manufacturer instructions. 5.2 Service and production records are maintained to assist with life cycle monitoring of parts and machine as required. 5.3 Faulty parts are identified for repair, replacement or adjustment as required. 5.4 Parts and consumables to be repaired or replaced are identified and repaired or replaced as required.

ELEMENT**PERFORMANCE CRITERIA**

5.5 Replacement parts and consumables are inspected, checked and monitored to ensure compliance with operational specifications.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level, required for this unit.

Demonstrates knowledge of:

- procedures and guidelines for safe operation of machines
- typical fault conditions and related fault finding procedures
- routine maintenance processes and practices
- preventative maintenance concepts
- root cause analysis concepts
- range and use of replacement parts and consumables
- techniques to replace parts and consumables
- characteristics of materials and fibres
- technical specifications manuals
- quality standards and practices
- OHS practices, including hazard identification and control measures
- workplace practices
- recording and reporting practices

Demonstrates skills to:

- assess operating performance of machine
- undertake root cause analysis
- carry out preventative maintenance activities
- start and stop machines according to specifications
- monitor machine operations including machine production readings
- recognise fault conditions
- use hand tools and hand-held power tools
- undertake cleaning and servicing
- recognise, rectify machine faults or problems as required
- check machine maintenance records
- check and confirm compliance to operational specifications
- solve problems
- brainstorm
- read, interpret and follow information on work specifications, standard operating procedures and work instructions, and other reference material
- maintain accurate records
- communicate within the workplace
- sequence operations
- meet specifications
- clarify and check task-related information
- carry out work according to OHS practices

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the Training Package.

Critical aspects of evidence to be considered	Demonstrates skills and knowledge to: • operate machines correctly • monitor machine performance against specifications and undertake minor adjustments • clean machines • identify faults • identify and replace replaceable parts and consumables used in normal machine operations • communicate and cooperate with mechanics/technicians and production personnel • complete records accurately and completely • apply OHS practices in work operations
Consistency in performance	Consistently applies skills and knowledge when: • organising work • completing tasks according to instructions • working systematically with attention to detail • identifying improvements and avoiding damage • using workplace practices • using OHS practices • recording and reporting accidents and incidents • assessing operational readiness of equipment • recognising and adapting to cultural differences in the workplace, including modes of behaviour and interactions
Resource implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Context for assessment	Assessment may occur on the job or in an appropriately simulated environment.
Interdependent assessment	This unit may be assessed independently or in combination with other relevant units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the Performance Criteria, is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Legislative/regulatory requirements	All work must comply with relevant Federal and State or Territory legislative or regulatory requirements.
Symptoms may include	• product does not meet specification • machine is not operating to specification • sounds not attributed to normal operation • recurrent faults such as yarn breaking, etc.
Machines may include	• knitting machines • carding machines • spinning machines • weaving looms • dyeing equipment • tufting looms • finishing equipment • creeling and warping machines
Appropriate personnel may include	• textile mechanic • supervisor • senior operator
Immediate solution may include	• decommission machine • change settings • adjust operation • perform temporary fix • refer to textile mechanic
Parts and consumables may include	• items that require periodic replacement as a result of normal machine and production operations, e.g. belts, globes, combs
OHS practices	OHS practices include hazard identification and control, risk assessment and implementation of risk reduction measures specific to the tasks described by this unit, and may relate to: • manual handling techniques • standard operating procedures • personal protective equipment • safe materials handling

- taking of rest breaks
- ergonomic arrangement of workplaces
- following marked walkways
- safe storage of equipment
- housekeeping
- reporting accidents and incidents
- environmental practices

Unit Sector(s)

Sector Textile Production