



Australian Government

Department of Education, Employment and Workplace Relations

LMTTX3019A Identify and correct mechanical faults in loom and other weaving equipment

Release: 1

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Modification History

Not applicable.

Unit Descriptor

Unit descriptor This unit covers the skills and knowledge required to identify and correct mechanical faults in weaving looms and related weaving equipment.

Application of the Unit

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This unit applies to the identification and correction of mechanical faults on commonly required looms and related weaving equipment. If higher level engineering skills are required then the relevant Metal and Engineering Training Package units should be taken. Discretion and judgement may be required, for both self and others, in planning and selecting processes, procedures or outcomes. Work may be conducted in small to large scale enterprises and may involve individual and team activities.

The application of this unit is according to 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

The identification and correction of faults may also require depending on the machine and fault, consultation with equipment operators or interpretation of engineering drawings, product specifications and operation manuals. Problem solving skills and initiative and enterprise are required to identify faults, problems or defects in looms or weaving equipment used in textile production. This unit also requires the ability to communicate information on loom operation and production requirements, and teamwork skills in order to work with loom operators.

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 Determine the cause of loom or related weaving equipment breakdowns	1.1 Operator is consulted on loom operation and condition prior to breakdown 1.2 Visual check is made of the loom and woven product for any obvious damage or faulty mechanical components 1.3 Fault finding skills are used to determine cause of loom breakdown 1.4 Loom engineering drawings, product specifications and operation manual are consulted where necessary
2 Solve mechanical loom and related weaving equipment problems	2.1 Gauges and tools are used correctly to adjust machine and in accordance with OHS practices 2.2 Parts are dismantled and assessed for disposal, reconditioning or continued use 2.3 Parts are reconditioned, where required including any needed grinding, milling or turning 2.4 Replacement parts are fitted and/or adjusted and tested in accordance with manufacturer specifications and workplace requirements 2.5 Loom or related weaving equipment is checked for correct operation after repair 2.6 Operator is advised of any special requirements as a consequence of the repair
3 Overhaul and recondition weaving looms and related weaving equipment	3.1 Loom condition assessed and estimated schedule of work to be performed prepared 3.2 Loom and related equipment overhauls are carried out in accordance with manufacturer specifications and workplace requirements 3.3 Parts are reconditioned, where required, including any needed grinding, milling or turning 3.4 Loom or related weaving equipment is checked for correct operation at end of overhaul
4 Maintain records	4.1 Records are maintained and reports prepared, where necessary

Required Skills and Knowledge

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

Demonstrates knowledge of:

- loom components and loom operation
- textile terminology and weaving theory
- setting up and adjustment requirements for the range of looms and equipment in the enterprise and the range of woven textiles produced
- machine manufacturer specifications
- safety and environmental aspects of relevant enterprise activities
- OHS practices, including hazard identification and control measures
- quality practices
- workplace practices
- recording and reporting practices

Demonstrates skills to:

- set and operate looms and other textile machines
- use appropriate hand and power tools and workshop machinery appropriate for loom part or equipment repair
- dismantle, repair and replace loom and related weaving equipment components
- operate primary mechanisms, eg shed forming, weft insertion, beat up, let off and take up
- test loom performance
- 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: • interpret appropriate documentation including where necessary standard operating procedures, loom and related equipment specifications, operating guidelines, workshop manuals and technical drawings • determine the condition of parts • identify faults and determine appropriate repair strategies • set loom correctly • operate loom safely and correctly • perform sample runs • make appropriate readjustments • apply workplace health and safety policies in production operations • maintain accurate records
Consistency in performance	Consistently applies skills and knowledge when: • organising work • completing tasks • identifying improvements • using workplace practices • using OHS practices • recording and reporting accidents and incidents • assessing operational readiness of equipment used and work processes • recognising and adapting to cultural differences in the workplace, including modes of behaviour and interactions • completing work systematically with attention to detail without damage to goods and equipment
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.

Woven product may include may include

- broadloom and narrowloom carpets
- apparel
- terry towelling
- furnishing and upholstery fabrics
- woven industrial products
- woven healthcare products

Product specifications may include may include

- quality name
- pile height
- beat-up
- width
- weaving construction (pattern)

Gauges and tools may include

- hand and power tools
- analogue and digital measuring equipment
- grinders

OHS practices OHS practices must include hazard identification and control, risk assessment and implementation of risk reduction measures specific to the tasks described by this unit, and may include:

- 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
- other OHS practices relevant to the job and enterprise

Unit Sector(s)

Sector Textile Production