**No. 129** **11 February 2009**

## SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)

In accordance with Regulation 24(c) of the National Standards Bodies Regulations of 28 March 1998, the Standards Generating Body (SGB) for

**Clothing, Textiles, Footwear and Leather**

registered by Organising Field 06 – Manufacturing, Engineering and Technology, publishes the following Qualification and Unit Standards for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purpose of the Qualification and Unit Standards. The full Qualification and Unit Standards can be accessed via the SAQA web-site at **www.saqa.org.za**. Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, SAQA House, 1067 Arcadia Street, Hatfield, Pretoria.

Comment on the Qualification and Unit Standards should reach SAQA at the address below and ***no later than 11 March 2009.*** All correspondence should be marked **Standards Setting – SGB for Clothing, Textiles, Footwear and Leather** and addressed to

The Director: Standards Setting and Development
SAQA
*Attention: Mr. E. Brown*
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**D. MPHUTHING**
**ACTING DIRECTOR: STANDARDS SETTING AND DEVELOPMENT**

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

***QUALIFICATION:***
***Further Education and Training Certificate: Sewing Machine Mechanics***

| *SAQA QUAL ID* | *QUALIFICATION TITLE* | | |
|---|---|---|---|
| 65650 | Further Education and Training Certificate: Sewing Machine Mechanics | | |
| *ORIGINATOR* | | *PROVIDER* | |
| SGB Clothing, Textiles, Footwear and Leather | | | |
| *QUALIFICATION TYPE* | *FIELD* | *SUBFIELD* | |
| Further Ed and Training Cert | 6 - Manufacturing, Engineering and Technology | Manufacturing and Assembly | |
| *ABET BAND* | *MINIMUM CREDITS* | *NQF LEVEL* | *QUAL CLASS* |
| Undefined | 121 | Level 4 | Regular-Unit Stds Based |

***This qualification does not replace any other qualification and is not replaced by another qualification.***

***PURPOSE AND RATIONALE OF THE QUALIFICATION***
Purpose:

The qualification is applicable to people across the CTFL sewing sector as the fundamental, core and elective components deal with knowledge, skills, values and attitudes required by all Sewing Machine Mechanicians in the sector. Learners will deal with specific Sewing Machine Mechanicians processes through the chosen elective area.

The purpose of the qualification is to build the Sewing Machine Mechanician competence at NQF Level 4 to address the following:

> The need to monitor the use of raw materials, lubricants and chemicals.
> The need to maintain and use a range of hand or power tools.
> The need to record quality related matters and maintain a quality system.
> The need to monitor waste and record waste related statistics.
> The need to determine common faults on mechanical, pneumatic, electrical, electronic systems and to conduct generic tests on these.
> The need to monitor and improve employer/employee practices in a CTFL plant.
> The need to manage time and productivity in CTFL sewing processes.
> The need to describe material flow in the manufacture of CTFL products.
> The need for learners to maintain a range of sewing machinery.
> The need to apply safety, house keeping, environmental practices and specific legal requirements.

This qualification will allow a learner to obtain a nationally recognised qualification in Sewing Machine Mechanics at NQF Level 4. It will set a standard for proficiency and assist in reducing high costs related to machine and equipment maintenance and breakdown. It will also assist with attracting and retaining quality learners. This qualification will also provide for the recognition of prior learning by allowing learners to obtain credits for knowledge and skills that they already possess and so obtain the qualification in whole or in part through such recognition.

The qualification supports the objectives of the National Qualifications Framework in the following ways:

> It provides for progression from the NQF Level 3 qualification. It also meets the NQF principle of portability in that 22 credits are carried over to the manufacturing processes qualifications at the same level in clothing, textiles, footwear and leather. Furthermore, it gives the opportunity for learners to obtain official recognition for knowledge and skills that they possess in Sewing Machine Mechanicians processes through the awarding of an officially recognised qualification.

>The provision that the qualification may be obtained through recognition of prior learning facilitates access to an education, training and career path in Sewing Machine Mechanician processes, and thus accelerates the redress of past unfair discrimination in education, training and employment opportunities.

> The inclusion of the specified unit standards in the fundamental and core categories contributes to the full personal development of each learner and the social and economic development of the nation at large.

Rationale:

The FETC in Sewing Machine Mechanics is designed to meet the needs of learners who are involved in Sewing Machine Mechanician processes or who enter the CTFL sector. This qualification reflects the workplace-based needs across the sector. The current and future need for competent Sewing Machine Mechanicians has been expressed by employers and employees, and is captured in this qualification. This qualification provides the learner with accessibility to be employed in manufacturing support processes and provides the flexibility in that learners accessing this qualification may move into qualifications in Clothing, Textiles, Footwear and Leather manufacturing processes.

To this end 24 credits in this qualification are portable across to the manufacturing process qualifications. This National Certificate is structured in such a away that it gives learners exposure to a broad set of core competencies while the electives may be chosen from either clothing, textiles (dry) or textiles (wet) processes. (Note: further work in developing elective standards in footwear and leather will complete the qualification for those specific elective areas). This qualification will allow for competence in the learner's current work environment or chosen future work environment. This qualification may also be accessed by learners who have demonstrated competence in the National Certificate in Sewing Machine Mechanics Processes at NQF Level 3.

***RECOGNIZE PREVIOUS LEARNING?***
Y

***LEARNING ASSUMED IN PLACE***
It is assumed that the learner is already competent in:

> Communication at NQF Level 3.
> Mathematical Literacy at NQF Level 3.

Recognition of Prior Learning:

This qualification may be achieved in part or in whole through the recognition of prior learning, which includes formal, informal and non-formal learning and work experience.

Access to the Qualification:

This Qualification is open for everyone who wishes to pursue a career in Sewing Machine Mechanics, but prior achievement of the learning assumed to be in place and the following would facilitate easier progression to achieve the outcomes of this Qualification:

> Learners should be competent in the National Certificate NQF Level 3 in Sewing Machine Mechanics or equivalent qualification.

***QUALIFICATION RULES***
The Qualification consists of a Fundamental, a Core and an Elective Component.

In this qualification the credits total a minimum of 121 credits and are allocated as follows:

> Fundamental; 56 credits; 46%.
> Core; 37 Credits; 31%.
> Elective; 28 credits; 24%.

To be awarded the Qualification, learners are required to obtain a minimum of 121 credits as detailed below.

Fundamental Component:

The Fundamental Component consists of 11 Unit Standards totaling 56 credits divided into:

> Mathematical Literacy at NQF Level 4 to the value of 16 credits.
> Communication at NQF Level 4 in a First South African Language to the value of 20 credits.
> Communication in a Second South African Language at NQF Level 3 to the value of 20 credits.
> It is compulsory therefore for learners to do Communication in two different South African languages, one at NQF Level 4 and the other at NQF Level 3.
> All Unit Standards in the Fundamental Component are compulsory.

Core Component:

The Core Component consists of 8 Unit Standards totaling 37 credits, all of which are compulsory.

Elective Component:

The Elective Component consists of 5 Unit Standards totaling 40 credits.
Learners are to choose Unit Standards to the minimum of 28 credits from the available unit standards.

Note:

A learner will only be allowed to select the Lockstitch and/or Crosstitch Sewing Machine elective at NQF Level 4, if they have successfully completed the Lockstitch and/or Crosstitch Sewing Machine elective at NQF Level 3.

***EXIT LEVEL OUTCOMES***
The outcomes are specified in terms of a combination of specific and critical cross-field outcomes as defined in the different unit standards.

On achieving this qualification, a learner is able to:

1. Monitor the use of raw materials, lubricants and chemicals when maintaining sewing machines and allied equipment.

2. Maintain and use a range of hand or power tools for situations that occur during maintenance and repair procedures.

3. Maintain a quality system as it applies to maintenance of sewing machines and allied equipment.

4. Monitor waste and record waste related statistics.

5. Repair common mechanical, pneumatic, electrical and electronic faults on sewing machines.

6. Monitor and improve employer/employee practices in a CTFL sewing plant.

7. Optimise the material flow from one process to another.

8. Maintain a range of sewing machinery.

9. Maintain time management for self and productivity.

***ASSOCIATED ASSESSMENT CRITERIA***
Associated Assessment Criteria for Exit Level Outcome 1:

> Raw materials, lubricants and chemicals are used according to manufacturer specifications for the maintenance of equipment.
> The correct consumables are used to keep the equipment at optimal efficiency.
> Waste of consumables is minimised in accordance with manufacturer specifications.
> Data is interpreted in accordance with manufacturer specifications to determine correct servicing requirements.
> Consumables used are recorded and reported in accordance with workplace procedures.

Associated Assessment Criteria for Exit Level Outcome 2:

> Tools required for a specific job are selected from a range of available tools.
> Tools are confirmed to be in correct working order prior to use.
> Broken or damaged tools are identified and corrective action is taken in accordance with organisational procedures.
> Alternative tools that can be used to perform the same task are identified and contrasted in terms of strengths and weaknesses.
> Specific legislation is adhered to as it relates to the use of specific tools and equipment in a given context.

Associated Assessment Criteria for Exit Level Outcome 3:

> Quality measurement criteria are defined from manufacturer specifications and workplace procedures.
> Quality criteria are evaluated for compliance to manufacturer specifications and workplace requirements.
> Deviances from required quality standards are identified and recorded in accordance with workplace procedures.
> Corrective measures are identified and implemented that will prevent reoccurrence of the deviances.

Associated Assessment Criteria for Exit Level Outcome 4:

> Material usage for a given project is recorded in accordance with workplace procedures.
> Waste is measured and compared to acceptable industry standards.
> Work is measured against applicable SHE and workplace requirements.
> Work is measured against industry acceptable timeframes.
> Statistics relating to waste are recorded and reported in accordance with workplace procedures.

Associated Assessment Criteria for Exit Level Outcome 5:

> Common faults are identified and categorised in terms of their cause and effect.
> Systematic procedures are employed to find faults according to manufacturer specifications and workplace procedures.
> Tools and equipment are used in accordance with their design.
> Safety precautions when working with electricity are adhered to in accordance with standard operating practices.
> Safety precautions when working with pneumatics are adhered to in accordance with standard operating practices.

Associated Assessment Criteria for Exit Level Outcome 6:

> Different roleplayers in the CTFL sector are identified and described in terms of the function they perform in the entire process.
> Potential areas of conflict in a CTFL sewing plant are identified and described in terms of their causes and possible solutions.
> Actual conflict is identified and resolved in accordance with acceptable methods that create a win-win situation for all parties.
> Communication with CTFL roleplayers is appropriate and facilitates good working relationships.
> Communication is conducted in accordance with workplace timeframes and procedures.

Associated Assessment Criteria for Exit Level Outcome 7:

> Raw materials, lubricants and chemicals required for a given project or work task are determined in accordance with industry accepted methods.
> Work processes are sequenced to allow for optimal usage of available materials and equipment.
> Material flow in the manufacture of CTFL products is described from one process to the next in accordance with normal operating procedures.
> Reasons for changing standard procedures are described in terms of availability of materials and equipment.
> Wastage and time taken is ensured to be in accordance with industry acceptable standards.

Associated Assessment Criteria for Exit Level Outcome 8:

> Routine maintenance requirements are identified from manufacturer specifications and workplace requirements.
> Maintenance is conducted in accordance with work schedules.
> Tools are used in accordance with their design.
> Maintenance is conducted within allowable timeframes and expenditure standards.
> Faults are identified and corrected in accordance with manufacturer specifications.
> Equipment is maintained in accordance with manufacturer specifications to ensure maximum reliability.
> Faults identified are recorded and reported in accordance with workplace procedures.

Associated Assessment Criteria for Exit Level Outcome 9:

> Industry acceptable timeframes are identified for given work functions.
> Own work is conducted in accordance with accepted timeframes.
> Work of subordinates is ensured to be completed in accordance with acceptable timeframes.
> Quality is ensured to be adhered to within acceptable timeframes.
> Waste is monitored and statistics are recorded to be able to accurately determine own and team productivity.

***INTERNATIONAL COMPARABILITY***

This qualification was benchmarked against sewing machine mechanician and/or equivalent qualifications in other countries, and was found to be comparable with other qualifications at this level, in terms of the outcomes and assessment criteria.

New Zealand:

Bruce Tollemache (Auckland):

> Training Advisor.
> Apparel, Footwear Sectors.
> bruce@atito.org.nz.

Bruce Tollemache the training advisor for the apparel and footwear sectors of The Apparel and Textile Industry Training Organisation provided useful input in terms of the New Zealand qualifications for clothing and textile personnel.

The qualifications are divided for clothing, footwear, industrial textiles, leather and machine knitting. The qualification identified to be the closest match to this qualification was the National Certificate in Clothing Manufacture (Elementary Sewing Skills) (Level 2), with the following broad outcomes:

> Thread and operate an industrial lockstitch sewing machine in a learning environment.
> Thread and operate an industrial overlock sewing machine in a learning environment.
> Demonstrate knowledge of workplace practice in the apparel or textile industry.
> Demonstrate knowledge of safe working practices in the apparel or textile industry.

Scottish Qualifications Authority:

There are currently no qualifications provided by the SQA related to Sewing Machine Mechanicians. The closest they come is a National Certificate in Home Economics, which incorporates the use of a sewing machine for sewing textiles. Various training units were identified that could be applicable to this qualification, as follows:

> Garment Machine Sewing Skills: Children's Wear.
> Garment Machine Sewing Skills: Gents' Light Clothing (Shirts).
> Garment Machine Sewing Skills: Ladies' Light Clothing (Bodices).
> Garment Machine Sewing Skills: Skirts.
> Garment Machine Sewing Skills: Trousers.
> Introductory Sewing Machine Skills.
> Machine and Hand Sewing for Soft Furnishing.
> Maintenance and Fabrication of Sewing Machine Attachments and Work Aids.
> Maintenance of Automatic Chainstitch Sewing Machines: Button Sewing/Tacking.
> Maintenance of Automatic Short Cycle Chainstitch Sewing Machines - Buttonholing.
> Maintenance of Automatic Short Cycle Lockstitch Sewing Machines - Bartacking/Button Sewing.
> Maintenance of Automatic Short Cycle Lockstitch Sewing Machines - Buttonholing.

> Trim and Upholstery Sewing.

African Qualifications:

An extensive search for similar qualifications for clothing machine mechanicians on the African continent proved to be fruitless. Countries looked at were:

> Malawi.
> Zimbabwe (The Registrar of Apprenticeship & Skilled Manpower).
> Botswana (The Principal - Selebi Pikwe Technical College).
> Namibia.

All parties corresponded with indicated that sewing machine manufacturers provide specific training in using and maintaining the machine, but no qualification is required.

Indian Qualifications:

The Apparel Training and Design Centre in India provides a 4 month qualification for a sewing machine mechanic. They were registered as a Society under Societies Registration Act on February 15, 1991 at New Delhi with the mission to upgrade the technical skills of the human resource employed in Garment Industry. The Society is Sponsored by Apparel Export Promotion Council, Ministry of Textiles, Government of India. The Chairman of Apparel Export Promotion Council (AEPC) is also the Chairman of Apparel Training & Design Centre (ATDC). The Society in turn has opened a number of training centres, with the same name. Presently Society has more than 39 Centres, also called Apparel Training & Design Centres (ATDCs). Keeping in view the growing demands of the apparel industry several ATDCs have been set up at different parts of the country where the garment industry is concentrated.

Currently there are 39 ATDC cenres functioning at Delhi, Noida, Gurgaon, Faridabad, Jaipur, Ludhiana, Kanpur, Bangalore, Hyderabad, Chennai, Trivandrum, Tirupur, Mumbai, Kolkata, Silvassa, Indore Surat, Tronica City-Ghaziabad, Bhubaneswar, Ranchi including 16 Sewing Machine Operation (SMO) - Satellite centres at Domjur, Santoshpur, Jalpaiguri (West Bengal), Pamidi, Rayadurg, Gundlapochampally (Andhra Pradesh), Mewat (Haryana), Dharmapuri, Parambalur(Tamil Nadu), Kolar, Tumkur, Ram Nagar, Chikkaballur, Bellary, Hubli (Karnataka) & Chhindwara(Madhya Pradesh). In continuation of its commitments for the development of skilled human resources ATDC is spreading its wings with the opening of a few more centres at various locations.

Indonesia:

The skills of a qualified sewing machine are recognised as a "Skilled Worker" category, but there is no indication that any particular qualification must be achieved.

United States of America:

The position of a sewing machine mechanic does not have a qualification standard attached, therefore requirements must be developed locally. These will be included in a vacancy announcement or job posting to indicate the requirements which all applicants or bidders must meet.

Sri Lanka:

The Ministry of Vocational and Technical training in Sri Lanka have identified the following skills for a sewing machine mechanic:

> Attend to preventive maintenance and running repairs of sewing machines and attachments in the factory floor.
> Attend to major repairs in a workshop or appropriate place.
> Co-ordinate with relevant persons/sections.

Fiji:

The Apprenticeship Scheme in Fiji is administered by the National Apprenticeship Training Department (NATD) of the Training & Productivity Authority of Fiji (TPAF). The position of a sewing machine mechanic has been identified as an apprenticeship and a course has been put together to meet these specific needs. The Fiji Institute of Technology provides the apprentices with the necessary theoretical training how ever, the National Apprenticeship Training Department is responsible for:

> Organizing all registered apprentices to attend classes and placing them in their respective courses on term basis (Blocks) at the Fiji Institute of Technology.
> Informing apprentices through their respective employers of the exam results and of any resit/repeats requirements.
> Monitoring attendance and progress through each stage and providing counseling where necessary.

The National Apprenticeship Training Department is responsible for ensuring the quality and standard of practical training to apprentices in accordance with the prescribed on-the-job training guides. Inspections and consultations are therefore carried out at least 3 times a year on all apprentices in the country.

The apprentices are inspected on the job site to ascertain the type of job situation they are working in and how effectively the different aspects of their training guide is covered. Detailed discussions with relevant personnel are held to ascertain an apprentice's progress at work. A report with appropriate recommendation is then made available to the apprentice, employer and a copy kept at the TPAF for records.

With the National Qualifications Framework (NQF) being developed by TPAF it has been necessary to introduce the Competency Based Training (CBT) format for the Apprenticeship Scheme. This new training concept is based more on the individual's ability and competence to achieve the desired results and output which allows for accreditation and certification at a given qualification level in the NQF; from Level 1 Basic to Level 4 Trade Certificate. The NQF will also help identify individual skills gap, when compared to the different qualification levels in the Framework.

The CBT format is such that training is not time-based, as currently stipulated for 4-5 years in the current Apprenticeship Scheme, but conducted at a pace suitable to the individual's capacity for learning and training until achievement of the qualification. The required practical training for each trade is more specific as to the tasks allocated, repetition of tasks completed, hours spent on the job and the assessment of performance and competence shown. Theoretical and technical training will be conducted according to the individual skills gap that has been identified. Foe employers, the CBT levels of qualification will provide a more accurate assessment of abilities to do work.

Conclusion:

There is a definite need in various countries for the skills required of a sewing machine mechanic, but these skills are generally provided by manufacturers in the form of a short course rather than a full qualification. Where qualifications have been identified, they are generally at full apprentice level and include various aspects of mechanical operations not included for sewing machines only.

*ARTICULATION OPTIONS*

This qualification has been designed and structured as part of a progressive route in the manufacturing and sewing processes industry so that qualifying learners can move from one level to the next.

The use of generic unit standards in this qualification opens new avenues for the learner to progress from one qualification to another in related fields of study beyond sewing machine mechanician. Employers or institutions should be able to evaluate the outcomes of this qualification against the needs of their context and structure top-up learning appropriately.

This qualification builds on the National Certificate in Sewing Machine Mechanician Processes at NQF Level 3. Learners may also decide to further their career in one of the following fields:

> Electrical engineering.
> Mechanical engineering.
> Technical sales.

Learners who have achieved this qualification have achieved generic skills that would enable them to follow a career in electrical or mechanical engineering. This qualification allows for both vertical and horizontal articulation.

Horizontal articulation exists with:

> ID 21871: Further Education and Training Certificate: Clothing Manufacturing Technology, NQF Level 4.
> ID 48964: Further Education and Training Certificate: Clothing, Textiles, Footwear and Leather (CTFL) Mechanician Processes, NQF Level 4.
> ID 23256: Further Education and Training Certificate: Mechanical Engineering: Fitting and Machining, NQF Level 4.
> ID 48474: Further Education and Training Certificate: Electrical Engineering, NQF Level 4.

Vertical articulation exists with:

> ID 48968: National Diploma: Clothing, Textiles, Footwear and Leather (CTFL) Mechanician Processes, NQF Level 5.
> ID 49061: National Certificate: Master Craftsmanship (Electrical), NQF Level 5.

*MODERATION OPTIONS*

> Assessors must be registered as an assessor with the relevant ETQA.

> Moderators must be registered as assessors with the relevant ETQA, or with an ETQA that has a Memorandum of Understanding with the relevant ETQA.

> The mechanisms and requirements for moderation should be applied in accordance with the requirements of the relevant ETQA.

> Anyone wishing to be assessed against this Qualification may apply to be assessed by any assessment agency, assessor or provider institution that is accredited by the relevant ETQA.

*CRITERIA FOR THE REGISTRATION OF ASSESSORS*

> Assessors need experience in the following areas:
> Interpersonal skills.
> Subject matter.
> Assessment.

> The assessor needs to be competent in the planning and conducting of assessment of learning outcomes as described in the unit standard:
> Plan and conduct assessment of learning outcomes NQF Level 4.

> Subject matter experience must be well developed within the different functional areas of the specific industry.

> The assessor must have successfully completed 1 or more of following:
> A the same or similar qualification at NQF Level 4 or higher, with a minimum of 6-12 months field experience after he/she has completed the qualification.

> The subject matter experience of the assessor can be established by recognition of prior learning.

> Assessors need to be registered with the relevant Education and Training Quality Assurance Bodies.

***NOTES***
N/A

***UNIT STANDARDS***

| | ID | UNIT STANDARD TITLE | LEVEL | CREDITS |
|---|---|---|---|---|
| Fundamental | 119472 | Accommodate audience and context needs in oral/signed communication | Level 3 | 5 |
| Fundamental | 119458 | Analyse and respond to a variety of literary texts | Level 3 | 5 |
| Fundamental | 119466 | Interpret a variety of literary texts | Level 3 | 5 |
| Fundamental | 119457 | Interpret and use information from texts | Level 3 | 5 |
| Fundamental | 9015 | Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems | Level 4 | 6 |
| Fundamental | 119462 | Engage in sustained oral/signed communication and evaluate spoken/signed texts | Level 4 | 5 |
| Fundamental | 119469 | Read/view, analyse and respond to a variety of texts | Level 4 | 5 |
| Fundamental | 9016 | Represent analyse and calculate shape and motion in 2- and 3-dimensional space in different contexts | Level 4 | 4 |
| Fundamental | 119471 | Use language and communication in occupational learning programmes | Level 4 | 5 |
| Fundamental | 7468 | Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues | Level 4 | 6 |
| Fundamental | 119459 | Write/present/sign for a wide range of contexts | Level 4 | 5 |
| Core | 253074 | Demonstrate an understanding of basic digital circuits | Level 3 | 6 |
| Core | 246659 | Demonstrate an Understanding of basic electrical and electronic principles | Level 4 | 5 |
| Core | 120344 | Demonstrate knowledge and understanding of relevant current occupational health and safety legislation | Level 4 | 4 |
| Core | 115285 | Demonstrate understanding of component disassembly, inspection, repair and assembly techniques | Level 4 | 4 |
| Core | 13235 | Maintain the quality assurance system | Level 4 | 5 |
| Core | 114618 | Monitor productivity in a business venture | Level 4 | 5 |
| Core | 116325 | Monitor the use of raw materials, chemicals and lubricants when maintaining machines and equipment | Level 4 | 3 |
| Core | 242811 | Prioritise time and work for self and team | Level 4 | 5 |
| Elective | 262526 | Maintain and repair fixed cycle mechanically controlled Chainstitch machines | Level 4 | 12 |
| Elective | 262531 | Maintain and repair fusing equipment | Level 4 | 4 |
| Elective | 262530 | Maintain and repair pneumatic and electronic sewing machinery | Level 4 | 6 |
| Elective | 262525 | Maintain and repair portable steam generating equipment | Level 4 | 6 |
| Elective | 262528 | Service fixed cycle mechanically controlled Lockstitch machines | Level 4 | 12 |

***LEARNING PROGRAMMES RECORDED AGAINST THIS QUALIFICATION***
***None***

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

*UNIT STANDARD:*

***Maintain and repair portable steam generating equipment***

| *SAQA US ID* | *UNIT STANDARD TITLE* | | |
|---|---|---|---|
| 262525 | Maintain and repair portable steam generating equipment | | |
| *ORIGINATOR* | | *PROVIDER* | |
| SGB Clothing, Textiles, Footwear and Leather | | | |
| *FIELD* | | *SUBFIELD* | |
| 6 - Manufacturing, Engineering and Technology | | Manufacturing and Assembly | |
| *ABET BAND* | *UNIT STANDARD TYPE* | *NQF LEVEL* | *CREDITS* |
| Undefined | Regular | Level 4 | 6 |

***This unit standard does not replace any other unit standard and is not replaced by another unit standard.***

SPECIFIC OUTCOME 1
Describe operation of portable steam generating equipment.

SPECIFIC OUTCOME 2
Demonstrate knowledge of servicing steam generating and pressing equipment.

SPECIFIC OUTCOME 3
Install portable steam generators and pressing equipment.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

| | ID | QUALIFICATION TITLE | LEVEL |
|---|---|---|---|
| Elective | 65650 | Further Education and Training Certificate: Clothing, Textiles, Footwear and Leather (CTFL) Sewing Machine Mechanician | Level 4 |

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

*UNIT STANDARD:*

***Maintain and repair fixed cycle mechanically controlled Chainstitch machines***

| *SAQA US ID* | *UNIT STANDARD TITLE* | | |
|---|---|---|---|
| 262526 | Maintain and repair fixed cycle mechanically controlled Chainstitch machines | | |
| *ORIGINATOR* | | *PROVIDER* | |
| SGB Clothing, Textiles, Footwear and Leather | | | |
| *FIELD* | | *SUBFIELD* | |
| 6 - Manufacturing, Engineering and Technology | | Manufacturing and Assembly | |
| *ABET BAND* | *UNIT STANDARD TYPE* | *NQF LEVEL* | *CREDITS* |
| Undefined | Regular | Level 4 | 12 |

***This unit standard does not replace any other unit standard and is not replaced by another unit standard.***

**SPECIFIC OUTCOME 1**
Describe operation of and practical application of fixed cycle Chainstitch machines.

**SPECIFIC OUTCOME 2**
Diagnose and rectify faults on fixed cycle Chainstitch machines.

**SPECIFIC OUTCOME 3**
Perform service procedures on fixed cycle Chainstitch machines.

**SPECIFIC OUTCOME 4**
Convert machines for given sewing applications.

**QUALIFICATIONS UTILISING THIS UNIT STANDARD**

| | ID | QUALIFICATION TITLE | LEVEL |
|---|---|---|---|
| Elective | 65650 | Further Education and Training Certificate: Clothing, Textiles, Footwear and Leather (CTFL) Sewing Machine Mechanician | Level 4 |

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

*UNIT STANDARD:*

***Service fixed cycle mechanically controlled Lockstitch machines***

| *SAQA US ID* | *UNIT STANDARD TITLE* | | |
|---|---|---|---|
| 262528 | Service fixed cycle mechanically controlled Lockstitch machines | | |
| *ORIGINATOR* | | *PROVIDER* | |
| SGB Clothing, Textiles, Footwear and Leather | | | |
| *FIELD* | | *SUBFIELD* | |
| 6 - Manufacturing, Engineering and Technology | | Manufacturing and Assembly | |
| *ABET BAND* | *UNIT STANDARD TYPE* | *NQF LEVEL* | *CREDITS* |
| Undefined | Regular | Level 4 | 12 |

***This unit standard does not replace any other unit standard and is not replaced by another unit standard.***

SPECIFIC OUTCOME 1
Describe operation of and practical application of fixed cycle Lockstitch machines.

SPECIFIC OUTCOME 2
Diagnose and rectify faults on fixed cycle Lockstitch machines.

SPECIFIC OUTCOME 3
Perform service procedures on fixed cycle Lockstitch machines.

SPECIFIC OUTCOME 4
Convert machines for given sewing applications.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

| | ID | QUALIFICATION TITLE | LEVEL |
|---|---|---|---|
| Elective | 65650 | Further Education and Training Certificate: Clothing, Textiles, Footwear and Leather (CTFL) Sewing Machine Mechanician | Level 4 |

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

*UNIT STANDARD:*

***Maintain and repair pneumatic and electronic sewing machinery***

| *SAQA US ID* | *UNIT STANDARD TITLE* | | |
|---|---|---|---|
| 262530 | Maintain and repair pneumatic and electronic sewing machinery | | |
| *ORIGINATOR* | | *PROVIDER* | |
| SGB Clothing, Textiles, Footwear and Leather | | | |
| *FIELD* | | *SUBFIELD* | |
| 6 - Manufacturing, Engineering and Technology | | Manufacturing and Assembly | |
| *ABET BAND* | *UNIT STANDARD TYPE* | *NQF LEVEL* | *CREDITS* |
| Undefined | Regular | Level 4 | 6 |

***This unit standard does not replace any other unit standard and is not replaced by another unit standard.***

SPECIFIC OUTCOME 1
Adjust electronic sewing machine motor controls.

SPECIFIC OUTCOME 2
Test and replace pneumatic and/or magnetically activated solenoids.

SPECIFIC OUTCOME 3
Adjust needle positioners/synchronisers.

SPECIFIC OUTCOME 4
Service trimming, cutting and/or stacking attachments.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

| | ID | QUALIFICATION TITLE | LEVEL |
|---|---|---|---|
| Elective | 65650 | Further Education and Training Certificate: Clothing, Textiles, Footwear and Leather (CTFL) Sewing Machine Mechanician | Level 4 |

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

*UNIT STANDARD:*

***Maintain and repair fusing equipment***

| *SAQA US ID* | *UNIT STANDARD TITLE* | | |
|---|---|---|---|
| 262531 | Maintain and repair fusing equipment | | |
| *ORIGINATOR* | | *PROVIDER* | |
| SGB Clothing, Textiles, Footwear and Leather | | | |
| *FIELD* | | *SUBFIELD* | |
| 6 - Manufacturing, Engineering and Technology | | Manufacturing and Assembly | |
| *ABET BAND* | *UNIT STANDARD TYPE* | *NQF LEVEL* | *CREDITS* |
| Undefined | Regular | Level 4 | 4 |

***This unit standard does not replace any other unit standard and is not replaced by another unit standard.***

SPECIFIC OUTCOME 1
Describe operation and application of fusing equipment.

SPECIFIC OUTCOME 2
Demonstrate knowledge of servicing fusing equipment.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

| | ID | QUALIFICATION TITLE | LEVEL |
|---|---|---|---|
| Elective | 65650 | Further Education and Training Certificate: Clothing, Textiles, Footwear and Leather (CTFL) Sewing Machine Mechanician | Level 4 |