



Government Gazette

REPUBLIC OF SOUTH AFRICA

Vol. 480 Pretoria 17 June 2005 **No. 27690**



AIDS HELPLINE: 0800-0123-22 Prevention is the cure

GOVERNMENT NOTICES

No. 581

SOUTH AFRICAN QUALIFICATION AUTHORITY

17 June 2005

Established in terms of Act 56 of 1995**SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)**

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

Manufacturing and Assembly Processes

publishes the following qualification and unit standards for public comment.

This notice contains the titles, fields, subfields, NQF levels, credits, and purpose of the qualification and unit standards. The qualification and unit standards can be accessed via the SAQA web-site at www.saga.org.za. Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, Hatfield Forum West, 1067 Arcadia Street, Hatfield, Pretoria.

Comment on the qualification and unit standards should reach SAQA at the address below and no **later than 18 July 2005**. All correspondence should be marked Standards Setting – SGB Vehicle Maintenance and addressed to

The Director: Standards Setting and Development

SAQA

Attention: Mr. Eddie Brown

Postnet Suite 248

Private Bag X06

Waterkloof

0145

or faxed to **012 - 431-5144**

e-mail: ebrown@saga.co.za


DUGMORE MPHUTHING**ACTING DIRECTOR: STANDARDS SETTING AND DEVELOPMENT**



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

QUALIFICATION:

National Certificate: Automotive Repair and Maintenance

SAQA QUAL ID		QUALIFICATION TITLE	
49689		National Certificate: Automotive Repair and Maintenance	
SGB NAME		NSB 06	PROVIDER NAME
SGB Vehicle Maintenance		Manufacturing, Engineering and Technology	
QUAL TYPE		FIELD	SUBFIELD
National Certificate		Manufacturing, Engineering and Technology	Manufacturing and Assembly
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUALIFICATION CLASS
Undefined	121	Level 2	Regular-Unit Stds Based

PURPOSE AND RATIONALE OF THE QUALIFICATION

Purpose of the qualification

The purpose of the qualification is to provide learners, education and training providers and employers with the standards and the range of learning required to work effectively in various industries making use of automotive repair and maintenance skills and to meet the challenges of the automotive industry and related environments.

The primary skill that is recognized in this qualification is the ability to apply the fundamentals of basic automotive repair and maintenance technology and to recognize and respond to typical repair and maintenance defects.

This capability requires an understanding of basic repairing and maintenance theory, names and functions of fluids and lubricants, automotive components and how to read and interpret workshop manuals and workshop procedures.

A thorough knowledge of automotive components and systems, workshop equipment and an ability to read, interpret and understand task instructions and job cards is required.

Hand skills play an important role in this qualification. Successful learners of one of the variations of this qualification are able to conduct the essential servicing and related operations associated with the range of vehicles on the road today and to apply efficient and safe operational practices in the following specialization areas:

- > Passenger, Light Delivery and Commercial Vehicles.
- > Earthmoving Equipment
- > Fork lift maintenance
- > Automotive body repair
- > Spray painting

With this understanding learners will be able to participate in operational activities.

What learners achieve in this qualification will also serve as a basis for further learning where they will engage in more complex automotive maintenance and repair activities in the field of vehicle technology.

Rationale of the qualification

The qualification National Certificate in Servicing Vehicles Level 2 has been revised and this qualification replaces the Servicing Vehicles qualification. The revision was necessary due to the inclusion of three additional specialization areas. The field of automotive maintenance and repair is characterized by the

overall servicing of vehicles as well as the removal, dismantling and replacement of components and minor adjustments to vehicle systems. This in turn provides support and job opportunities to a variety of small businesses in the retail motor and related industries.

This qualification recognizes the skills, knowledge and values relevant in the workplace and will cater for learners who:

- > Have attended courses and need to apply the knowledge gained to activities in the workplace.
- > Are already workers and have acquired skills and knowledge without having attended formal training.
- > Are part of a learnership program which integrates structured learning and operational experience.

People working in the automotive repair and maintenance field require technical skills and knowledge, and well developed hand skills.

There is also a critical need in the industry to identify people who are able to conduct the essential servicing and related operations associated with the range of vehicles on the road today and apply efficient and safe operational practices in at least one of the following specialization areas:

- > Passenger, Light Delivery and Commercial Vehicles
- > Earthmoving Equipment
- > Fork lift maintenance
- > Automotive body repair
- > Spray painting

This is the first qualification in a series for learners who want to follow a career in the field of automotive repair and maintenance. This qualification focuses on developing skills and knowledge necessary to begin such a career.

It also provides learners who have gained relevant experience in the workplace with an opportunity to obtain credits through an RPL process. The qualification also forms the basis for further learning in field of vehicle technology

RECOGNIZE PREVIOUS LEARNING?

Y

LEARNING ASSUMED TO BE IN PLACE

This qualification assumes learners have a General Education and Training Certificate at NQF level 1, or alternatively, an ABET level 4 qualification

If the learner does not already have such a qualification, learning in preparation for this qualification should include:

- > Literacy and numeracy
- > Basic concepts of science and technology

Recognition of prior learning

This qualification may be obtained through a process of RPL. The learner should be thoroughly briefed prior to the assessment and support provided to assist in the process of developing a portfolio.

While this is primarily a workplace-based qualification, evidence from other areas of endeavor may be introduced if pertinent to any of the exit-level outcomes.

QUALIFICATION RULES

Rules of combination for this qualification (five specialization areas)

- > All Fundamental unit standards are compulsory (36 Credits)
- > All Core unit standards are compulsory (26 Credits)
- > All elective unit standards in one specialization area which are:
 - > Specialization area 1 - Passenger, Light Delivery and Commercial Vehicles unit standards are compulsory (35 Credits) for learners specializing in this field
 - > 15127 - Remove earthmoving equipment components

- > 15126- Install earthmoving equipment components
 - > 15121 -Adjust headlights
 - > 15123- Select and use vehicle lifting equipment
 - > 15120- Balance a wheel
 - > 15133- Carry out a service
 - > 12210 - Remove, test, fit and service automobile batteries
- > Specialization area 2 - Earthmoving Equipment unit standards are compulsory (28 Credits) for learners specializing in this field
- > 15127 - Remove earthmoving equipment components
 - > 15126- Install earthmoving equipment components
 - > 15124- Take fluid samples from a vehicle
 - > 15133- Carry out a service
 - > 15130- Conduct an inspection on earthmoving equipment
 - > 15122- Dismantle earthmoving equipment components
- > Specialization area 3 - Forklift unit standards are compulsory (30 Credits) for a learner specializing in this field
- > 15127 - Remove earthmoving equipment components
 - > 15126- Install earthmoving equipment components
 - > 15133 - Carry out a service
 - > 15130- Conduct an inspection on earthmoving equipment
 - > 12210- Remove, test, fit and service automobile batteries
- > Specialization area 4 - Automotive body repairer unit standards are compulsory (38 Credits) for a learner specializing in the body repair field
- > 119736 - Understand the body construction and safety features of a vehicle
 - > 119741 - Remove replace and align body parts
 - > 119747 - Repair minor dents on ferrous body shell parts
 - > 9880 - Perform basic welding/joining of metals
 - > 12243- Cut materials using the oxy-fuel gas cutting process (manual cutting)
- > Specialization area 5 - Spray Painter unit standards are compulsory (30 Credits) for a learner specializing in the field of automotive spray painting
- > 119740 - Identify the various types of paint, primers, material and their uses
 - > 119734 - Perform surface preparation on a body panel
 - > 119742 - Perform masking and de-masking on a vehicle
 - > 119737 - Perform basic spray painting

In addition, a selection of Individual Elective unit standards must be completed to achieve a total of 120 credits for this qualification.

- > A minimum of 24 Credits for Specialization Area 1
- > A minimum of 31 Credits for Specialization Area 2
- > A minimum of 29 Credits for Specialization Area 3
- > A minimum of 21 Credits for Specialization Area 4
- > A minimum of 29 Credits for Specialization Area 5

EXIT LEVEL OUTCOMES

1. Communicate and solve problems in a variety of ways.
2. Conduct essential servicing and related operations associated with a range of vehicles.
Range: > Passenger, Light Delivery and Commercial Vehicles.
 - > Earthmoving Equipment
 - > Fork lift
3. Demonstrate an understanding of automotive body construction and repair.
4. Select and use the paint application equipment and apply paint to body panels.
5. Demonstrate safe working practices that are required by operational and SHE procedures and achieve high levels of safety consciousness and an improved productive environment.
6. Demonstrate the ability to use and operate a computer system.

ASSOCIATED ASSESSMENT CRITERIA

1.
 - > Regular and on-going communication is conducted.
 - > Problems are identified and solved to indicate critical and creative thinking.
 - > Daily work schedules are on a regular basis with other team members.
 - > Information relevant to own work context is gathered, recorded and reported when required and in an appropriate manner.
 - > Establish functioning relationships with team members and supervisory / management levels.
2.
 - > The fundamentals of basic automotive repair and maintenance technology are applied.
 - > Typical repair and maintenance defects are recognized and responded to.
 - > Minor adjustments to vehicle systems are made and components are removed, dismantled and replaced.
3.
 - > Body trim and accessories are identified, repositioned and removed in accordance with workplace procedures.
 - > List of body components, vehicle construction safety features and materials used is compiled for the repair process.
 - > Procedure to repair minor dents on ferrous body shell and panels are applied according to automotive specifications.
 - > The damage and scope of repairs are assessed, determined and repaired in accordance with the job and workplace requirements.
 - > Welding equipment and metal joining procedures are set up and performed.
 - > Basic and major components of the oxy-fuel cutting process and equipment are identified and the explanation of function and purpose is correct in terms of the cutting standards.
4.
 - > Various paints, primers and materials are identified, selected and applied to correct use in accordance with the suppliers and manufacturers manuals.
 - > Correct surface preparation equipment is selected prepared for paint application.
 - > Masking and de-masking techniques are demonstrated in accordance with best workplace best practices.
5.
 - > Equipment is prepared, used and operated according to procedures.
 - > A clean safe work area is maintained.
 - > Prepared materials are handled and cared for.
 - > Safety, health, environmental, quality and risk management policies and procedures are applied and adhered to.
6.
 - > Computer, software and peripherals are used to process information.
 - > Basic troubleshooting techniques are applied on a computer system.

INTERNATIONAL COMPARABILITY

As a starting point, this qualification which is part of a series of qualifications in the field of vehicle technology including, servicing, maintenance, repairs and diagnostics, was compared to other, similar outcomes-based qualifications, certifications or skills standards in New Zealand and Australia.

It was found to be difficult to compare the New Zealand and Australian narrow focus qualifications with this broad-based qualification that also include fundamentals, generic core and specialization areas' unit standards.

It was further difficult to undertake such comparisons given that the New Zealand and Australian qualifications, although they are in the same field of vehicle technology and cover the same areas of specialization (thus containing a large degree of similar content) are conceptualized as three year qualifications without exit level outcomes at the intermediate levels.

This notwithstanding, the technical content of this qualification for automotive repair and maintenance (with the various specializations) of which the highest qualification is at NQF level 2 does correspond with the equivalent level of qualification in vehicle servicing (with the various specializations) in Australia, New Zealand and the United Kingdom.

ARTICULATION OPTIONS

The qualification allows for vertical articulation with the National Certificate: Servicing Vehicles: NQF Level 3. The qualification also allows for horizontal articulation with other related engineering qualifications at NQF Level 2.

MODERATION OPTIONS

- > Anyone assessing a learner against this qualification must be registered as an assessor with the relevant ETQA or an ETQA that has an MOU with a relevant ETQA.
- > Any institution or learning provider offering learning towards the achievement of this qualification should be accredited as a provider with the relevant ETQA.
- > Moderation of assessment should be overseen by relevant ETQA or any other relevant ETQA according to the moderation guidelines provided for in this qualification as well as the agreed ETQA procedures.

CRITERIA FOR THE REGISTRATION OF ASSESSORS

The following criteria should be applied by the relevant ETQA:

- > An appropriate qualification and in vehicle, servicing, repair or manufacturing at NQF level 3 or higher.
- > Registration as an assessor with the relevant ETQA.

NOTES

This qualification replaces qualification 24455, National Certificate: National Certificate: Servicing Vehicles, Level 2, 120 credits.

	UNIT STANDARD ID AND TITLE	LEVEL	CREDITS	STATUS
Core	116932 Operate a personal computer system	Level 1	3	Registered
Core	117867 Managing files in a Graphical User Interface (GUI) environment	Level 1	3	Registered
Core	117902 Use generic functions in a Graphical User Interface (GUI)-environment	Level 1	4	Registered
Core	13220 Keep the work area safe and productive	Level 2	8	Registered
Core	119744 Select, use and care for engineering hand tools	Level 2	8	Draft - Prep for P Comment
Elective	9268 Manage basic personal finance	Level 2	6	Registered
Elective	12212 Assemble, Mand repair automobile auxiliary harnesses	Level 2	12	Registered
Elective	12214 Remove and M automobile mechanical and electrical components	Level 2	12	Registered
Elective	12463 Understand and deal with HIV/AIDS	Level 2	3	Registered
Elective	12465 Develop a learning plan and a portfolio for assessment	Level 2	6	Registered
Elective	12466 Explain the individual's role within business	Level 2	4	Registered
Elective	12476 Select, use and care for engineering measuring equipment	Level 2	4	Registered
Elective	13217 Collect and use information	Level 2	5	Registered
Elective	13258 Participate in work group activities	Level 2	4	Registered
Elective	15123 Select and use vehicle lifting equipment	Level 2	3	Registered
Elective	119734 Perform surface preparation on a body panel	Level 2	8	Draft - Prep for P Comment
Elective	119735 Remove, test, Mand service automobile batteries	Level 2	4	Draft - Prep for P Comment
Elective	119736 Understand the body construction and safety features of a vehicle	Level 2	4	Draft - Prep for P Comment
Elective	119737 Perform basic Spray Painting	Level 2	10	Draft - Prep for P Comment
Elective	119738 Remove automotive components	Level 2	4	Draft - Prep for P Comment
Elective	119739 Take fluid samples	Level 2	2	Draft - Prep for P Comment
Elective	119740 Identify the various types of paint primers, material and their uses	Level 2	4	Draft - Prep for P Comment
Elective	119741 Remove, replace and align body parts	Level 2	8	Draft - Prep for P Comment
Elective	119742 Perform masking and de-masking on a vehicle	Level 2	8	Draft - Prep for P Comment

Elective	119743 Dismantle automotive components	Level2	4	Draft - Prep for P Comment
Elective	119745 Conduct an inspection	Level2	4	Draft - Prep for P Comment
Elective	119746 Balance a wheel	Level2	4	Draft - Prep for P Comment
Elective	119747 Repair minor dents on ferrous body shell and parts	Level2	8	Draft - Prep for P Comment
Elective	119748 Install Automotive components	Level2	6	Draft - Prep for P Comment
Elective	119749 Cut material with oxy-fuel gas cutting process (Manual Cutting)	Level2	6	Draft - Prep for P Comment
Elective	119750 Inspect and lubricate an automotive system	Level2	8	Draft - Prep for P Comment
Elective	119751 Carry out a service	Level2	8	Draft - Prep for P Comment
Elective	119752 Adjust headlights	Level2	2	Draft - Prep for P Comment
Elective	119753 Perform basic welding/joining of metals	Level2	8	Draft - Prep for P Comment
Fundamental	7469 Use mathematics to investigate and monitor the financial aspects of personal and community life	Level2	2	Reregistered
Fundamental	7480 Demonstrate understanding of rational and irrational numbers and number systems	Level2	3	Reregistered
Fundamental	8962 Maintain and adapt oral communication	Level2	5	Reregistered
Fundamental	8963 Access and use information from texts	Level2	5	Reregistered
Fundamental	8964 Write for a defined context	Level2	5	Reregistered
Fundamental	8965 Respond to literary texts	Level2	5	Reregistered
Fundamental	9007 Work with a range of patterns and functions and solve problems	Level2	5	Reregistered
Fundamental	9008 Identify, describe, compare, classify, explore shape and motion in 2- and 3-dimensional shapes in different contexts	Level 2	3	Reregistered
Fundamental	9009 Apply basic knowledge of statistics and probability to influence the use of data and procedures in order to investigate life related problems	Level2	3	Reregistered



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

SAQA US ID	UNIT STANDARD TITLE		
119752	Adjust headlights		
SGB NAME	NSB 06	PROVIDER NAME	
SGB Vehicle Maintenance	Manufacturing, Engineering and Technology		
UNIT STANDARD TYPE	FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Manufacturing, Engineering and Technology	Manufacturing and Assembly	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	2	Level 2	Regular

SPECIFIC OUTCOME 1

The learner is able to plan for the adjusting of the headlights.

SPECIFIC OUTCOME 2

Prepare the vehicle and headlight aimer.

SPECIFIC OUTCOME 3

Adjusting the headlights.

SPECIFIC OUTCOME 4

Restore the work area.

SPECIFIC OUTCOME 5

Complete and process documentation.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Balance a wheel

SAQA US ID	UNIT STANDARD TITLE		
119746	Balance a wheel		
SGB NAME	NSB 06	PROVIDER NAME	
SGB Vehicle Maintenance	Manufacturing, Engineering and Technology		
UNIT STANDARD TYPE	FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Manufacturing, Engineering and Technology	Manufacturing and Assembly	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 2	Regular

SPECIFIC OUTCOME 1

The learner will be able to plan and prepare work area and vehicle for wheel balancing task.

SPECIFIC OUTCOME 2

The learner is able to prepare wheel-balancing machine.

SPECIFIC OUTCOME 3

Balance wheel.

SPECIFIC OUTCOME 4

Apply safety procedures relating to wheel balancing.

SPECIFIC OUTCOME 5

Restore vehicle and work area.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:**Carry out a service**

SAQA US ID	UNIT STANDARD TITLE		
119751	Carry out a service		
SGB NAME		NSB 06	PROVIDER NAME
SGB Vehicle Maintenance		Manufacturing, Engineering and Technology	
UNIT STANDARD TYPE		FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Manufacturing, Engineering and Technology	Manufacturing and Assembly
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 2	Regular

SPECIFIC OUTCOME 1

Plan and prepare for servicing.

SPECIFIC OUTCOME 2

The learner is able to perform the service.

SPECIFIC OUTCOME 3

Apply quality checks on a completed service.

SPECIFIC OUTCOME 4

Learner worked safely with consideration for oneself, fellow workers and the environment.

SPECIFIC OUTCOME 5

The learner restored the work area and completed appropriate documentation.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:**Conduct an inspection**

SAQA US ID	UNIT STANDARD TITLE		
119745	Conduct an inspection		
SGB NAME		NSB 06	PROVIDER NAME
SGB Vehicle Maintenance		Manufacturing, Engineering and Technology	
UNIT STANDARD TYPE		FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Manufacturing, Engineering and Technology	Manufacturing and Assembly
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 2	Regular

SPECIFIC OUTCOME 1

The learner can plan and prepare for a serviceability and condition inspection.

SPECIFIC OUTCOME 2

The learner has learned to inspect a static system for defects.

SPECIFIC OUTCOME 3

The learner has mastered the inspection of a functional (operational) system.

SPECIFIC OUTCOME 4

Learner is able to apply safety procedures during automotive system inspection.

SPECIFIC OUTCOME 5

Learner has learned to restore work area, complete and process documentation.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

SAQA US ID	UNIT STANDARD TITLE		
119749	Cut material with oxy-fuel gas cutting process (Manual cutting)		
SGB NAME		NSB 06	PROVIDER NAME
SGB Vehicle Maintenance		Manufacturing, Engineering and Technology	
UNIT STANDARD TYPE	FIELD DESCRIPTION		SUBFIELD DESCRIPTION
Regular	Manufacturing, Engineering and Technology		Manufacturing and Assembly
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	6	Level 2	Regular

SPECIFIC OUTCOME 1

Describe the oxy-fuel cutting process.

SPECIFIC OUTCOME 2

Prepare the equipment for the oxy fuel cutting operation.

SPECIFIC OUTCOME 3

Cut material.

SPECIFIC OUTCOME 4

Care and storage of cutting equipment, tools, and materials.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

SAQA US ID	UNIT STANDARD TITLE		
119743	Dismantle automotive components		
SGB NAME	NSB 06	PROVIDER NAME	
SGB Vehicle Maintenance	Manufacturing, Engineering and Technology		
UNIT STANDARD TYPE	FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Manufacturing, Engineering and Technology	Manufacturing and Assembly	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 2	Regular

SPECIFIC OUTCOME 1

Learner has learned to plan and prepare work area and automotive component for dismantling.

SPECIFIC OUTCOME 2

Learner is able to dismantle automotive component.

SPECIFIC OUTCOME 3

Learner has learned to apply safety procedures during automotive component dismantling task.

SPECIFIC OUTCOME 4

Learner has learner to restore work area, complete and process documentation.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:**Identify the various types of paint, primers, material and their uses**

SAQA US ID	UNIT STANDARD TITLE		
119740	Identify the various types of paint, primers, material and their uses		
SGB NAME		NSB 06	PROVIDER NAME
SGB Vehicle Maintenance		Manufacturing, Engineering and Technology	
UNIT STANDARD TYPE		FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Manufacturing, Engineering and Technology	Manufacturing and Assembly
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 2	Regular

SPECIFIC OUTCOME 1

The Learner is able to obtain and interpret all available information.

SPECIFIC OUTCOME 2

The Learner is able to identify the different types of paint and materials.

SPECIFIC OUTCOME 3

The Learner can explain the different uses of paint, primer and materials.

SPECIFIC OUTCOME 4

The Learner is able to discuss and explain reasons for product storage and durability processes.



SAQA US ID	UNIT STANDARD TITLE		
119750	Inspect and lubricate an automotive system		
SGB NAME	NSB 06	PROVIDER NAME	
SGB Vehicle Maintenance	Manufacturing, Engineering and Technology		
UNIT STANDARD TYPE	FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Manufacturing, Engineering and Technology	Manufacturing and Assembly	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 2	Regular

SPECIFIC OUTCOME 1

The learner has learned to plan and prepare to inspect and lubricate an automotive system.

SPECIFIC OUTCOME 2

Learner is able to drain, refill or top up fluids and apply lubricants.

SPECIFIC OUTCOME 3

Learner is able to Inspect and identify leaks and defects on automotive system.

SPECIFIC OUTCOME 4

Learner has learned to restore work area, complete and process documentation.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

install Automotive components

SAQA US ID	UNIT STANDARD TITLE		
119748	Install Automotive components		
SGB NAME	NSB 06	PROVIDER NAME	
SGB Vehicle Maintenance	Manufacturing, Engineering and Technology		
UNIT STANDARD TYPE	FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Manufacturing, Engineering and Technology	Manufacturing and Assembly	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	6	Level 2	Regular

SPECIFIC OUTCOME 1

Learner has learned to plan and prepare automotive component installation.

SPECIFIC OUTCOME 2

Learner is able to install an automotive component.

SPECIFIC OUTCOME 3

Learner is able to test automotive component installation.

SPECIFIC OUTCOME 4

Learner has learned to apply safety procedures during automotive component installation task.

SPECIFIC OUTCOME 5

Learner has learned to restore work area, complete and process documentation.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:**Perform basic Spray Painting**

SAQA US ID	UNIT STANDARD TITLE		
119737	Perform basic Spray Painting		
SGB NAME		NSB 06	PROVIDER NAME
SGB Vehicle Maintenance		Manufacturing, Engineering and Technology	
UNIT STANDARD TYPE		FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Manufacturing, Engineering and Technology	Manufacturing and Assembly
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	10	Level 2	Regular

SPECIFIC OUTCOME 1

Prepare to apply a paint application on a part.

SPECIFIC OUTCOME 2

Perform spray painting techniques on the part in a safe and aware manner.

SPECIFIC OUTCOME 3

Interact with others to identify paint defects and understand their causes.

SPECIFIC OUTCOME 4

Discuss, explain and demonstrate the cleaning and storing procedures of spray painting equipment.

SPECIFIC OUTCOME 5

Deliver the sprayed part and restore the work area.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:**Perform basic welding/joining of metals**

SAQA US ID	UNIT STANDARD TITLE		
119753	Perform basic welding/joining of metals		
SGB NAME		NSB 06	PROVIDER NAME
SGB Vehicle Maintenance		Manufacturing, Engineering and Technology	
UNIT STANDARD TYPE		FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Manufacturing, Engineering and Technology	Manufacturing and Assembly
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 2	Regular

SPECIFIC OUTCOME 1

Prepare for work activity.

SPECIFIC OUTCOME 2

Weld/join metals.

SPECIFIC OUTCOME 3

Apply quality checks on completed weld/joint.

SPECIFIC OUTCOME 4

Perform finishing activities.

SPECIFIC OUTCOME 5

Report out of compliance or unsafe conditions while working.

SPECIFIC OUTCOME 6

Work safely with due care for self, fellow workers, equipment, materials and the environment.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

SAQA US ID	UNIT STANDARD TITLE		
119742	Perform masking and de-masking on a vehicle		
SGB NAME	NSB 06	PROVIDER NAME	
SGB Vehicle Maintenance	Manufacturing, Engineering and Technology		
UNIT STANDARD TYPE	FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Manufacturing, Engineering and Technology	Manufacturing and Assembly	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 2	Regular

SPECIFIC OUTCOME 1

Identify the area to be masked.

SPECIFIC OUTCOME 2

Prepare the vehicle for cleaning and masking.

SPECIFIC OUTCOME 3

Mask the identified area on the vehicle.

SPECIFIC OUTCOME 4

Restore the vehicle after the paint application in a safe and aware manner.

SPECIFIC OUTCOME 5

Interact with others to quality assure the masking process.

SPECIFIC OUTCOME 6

Deliver the repairs and restore the work area.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

SAQA US ID	UNIT STANDARD TITLE		
119734	Perform surface preparation on a body panel		
SGB NAME		NSB 06	PROVIDER NAME
SGB Vehicle Maintenance		Manufacturing, Engineering and Technology	
UNIT STANDARD TYPE		FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Manufacturing, Engineering and Technology	Manufacturing and Assembly
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 2	Regular

SPECIFIC OUTCOME 1

Read and interpret all available information.

SPECIFIC OUTCOME 2

Clean the body panel.

SPECIFIC OUTCOME 3

Prepare the body panel surface with abrasives.

SPECIFIC OUTCOME 4

Identify, mix and apply fillers on the body panel in a safe and aware manner.

SPECIFIC OUTCOME 5

Interact with others to perform a quality check on the surfaced prepared area.

SPECIFIC OUTCOME 6

Deliver the repairs and restore the work area.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Remove automotive components

SAQA US ID	UNIT STANDARD TITLE		
119738	Remove automotive components		
SGB NAME	NSB 06	PROVIDER NAME	
SGB Vehicle Maintenance	Manufacturing, Engineering and Technology		
LRD 7	FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
F	M: a t Engineering and	and sembly	
LEVEL BAND	NQFL	STANDARD TYPE	
Level 4	Level 2		

SPECIFIC OUTCOME 1

Learners can plan and prepare for automotive component removal.

SPECIFIC OUTCOME 2

Learner has learned to remove an automotive component.

SPECIFIC OUTCOME 3

The learner applied safe procedures during automotive component removal task.

SPECIFIC OUTCOME 4

Learner is able to restore work area, complete and process documentation.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Remove, replace and align body parts

SAQA US ID	UNIT STANDARD TITLE		
119741	Remove, replace and align body parts		
SGB NAME	NSB 06	PROVIDER NAME	
SGB Vehicle Maintenance	Manufacturing, Engineering and Technology		
UNIT STANDARD TYPE	FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Manufacturing, Engineering and Technology	Manufacturing and Assembly	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 2	Regular

SPECIFIC OUTCOME 1

Assess the damage and determine the extent of repairs.

SPECIFIC OUTCOME 2

Remove panel or body parts.

SPECIFIC OUTCOME 3

Replace and align the body parts, trim and accessories.

SPECIFIC OUTCOME 4

Restore the work area, complete and process documentation.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

SAQA US ID	UNIT STANDARD TITLE		
119735	Remove, test, fit and service automobile batteries		
SGB NAME	NSB 06	PROVIDER NAME	
SGB Vehicle Maintenance	Manufacturing, Engineering and Technology		
UNIT STANDARD TYPE	FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Manufacturing, Engineering and Technology	Manufacturing and Assembly	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 2	Regular

SPECIFIC OUTCOME 1

Explain, discuss and demonstrate the removal and fitting of an automobile **battery**.

SPECIFIC OUTCOME 2

Test automobile batteries.

SPECIFIC OUTCOME 3

Service automobile batteries.

SPECIFIC OUTCOME 4

Remove and replace battery terminals and cables.

SPECIFIC OUTCOME 5

Discuss and explain automobile battery related topics.

SPECIFIC OUTCOME 6

Use and complete relevant documentation.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Repair minor dents on ferrous body shell and parts

SAQA US ID	UNIT STANDARD TITLE		
119747	Repair minor dents on ferrous body shell and parts		
SGB NAME	NSB 06	PROVIDER NAME	
SGB Vehicle Maintenance	Manufacturing, Engineering and Technology		
UNIT STANDARD TYPE	FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Manufacturing, Engineering and Technology	Manufacturing and Assembly	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 2	Regular

SPECIFIC OUTCOME 1

Prepare the vehicle and assess the damaged part.

SPECIFIC OUTCOME 2

Determine the repair process of the damaged part.

SPECIFIC OUTCOME 3

Repair the damaged part while maintaining safe working practises.

SPECIFIC OUTCOME 4

Perform a quality evaluation of the repaired part.

SPECIFIC OUTCOME 5

Deliver the repairs and restore the work area.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

SAQA US ID	UNIT STANDARD TITLE		
119744	Select, use and care for engineering hand tools		
SGB NAME		NSB 06	PROVIDER NAME
SGB Vehicle Maintenance		Manufacturing, Engineering and Technology	
UNIT STANDARD TYPE		FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Manufacturing, Engineering and Technology	Manufacturing and Assembly
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 2	Regular

SPECIFIC OUTCOME 2

Care for and maintain engineering hand tools.

SPECIFIC OUTCOME 3

Work safely with due care for self, fellow workers, equipment, materials and the environment.



SAQA US ID	UNIT STANDARD TITLE		
119739	Take fluid samples		
SGB NAME	NSB 06	PROVIDER NAME	
SGB Vehicle Maintenance	Manufacturing, Engineering and Technology		
UNIT STANDARD TYPE	FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Manufacturing, Engineering and Technology	Manufacturing and Assembly	
ABET BAND (CREDITS)	NQF LEVEL	UNIT STANDARD TYPE	
Undefined 2	Level 2	Regular	

SPECIFIC OUTCOME 1

Learner has learned to Plan and prepare for fluid sampling.

SPECIFIC OUTCOME 2

Learner is able to take a fluid sample.

SPECIFIC OUTCOME 3

Learner has learned to apply quality concepts and standards.

SPECIFIC OUTCOME 4

Learner has learned to apply safety concepts relating to sampling.

SPECIFIC OUTCOME 5

Learner has learned to restore work area, prepare and process documentation.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:**Understand the body construction and safety features of a vehicle**

SAQA US ID	UNIT STANDARD TITLE		
119736	Understand the body construction and safety features of a vehicle		
SGB NAME		NSB 06	PROVIDER NAME
SGB Vehicle Maintenance		Manufacturing, Engineering and Technology	
UNIT STANDARD TYPE		FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Manufacturing, Engineering and Technology	Manufacturing and Assembly
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 2	Regular

SPECIFIC OUTCOME 1

Identify and access all information from a variety of sources.

SPECIFIC OUTCOME 2

Compile a list of body components.

SPECIFIC OUTCOME 3

Compile a list of materials used in the body construction.

SPECIFIC OUTCOME 4

Compile a list of the safety features in a vehicle.

SPECIFIC OUTCOME 5

Interact with others to identify the activating mechanisms and functions of the safety features on a vehicle.