

No. 675

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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

Aircraft Maintenance and Overhaul

Registered by NSB 06, Manufacturing, Engineering and Technology, publishes the following qualifications and unit standards for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purpose of the qualifications 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 unit standards should reach SAQA at the address ***below and no later than 5 July 2004***. All correspondence should be marked **Standards Setting – SGB for Aircraft Maintenance and Overhaul** and addressed to

The Director: Standards Setting and Development
SAQA

Attention: Mr. D Mphuthing

Postnet Suite 248

Private Bag X06

Waterkloof

0145

or faxed to 012 – 431-5144

e-mail: dmphuthing@saga.co.za

JOE SAMUELS

DIRECTOR: STANDARDS SETTING AND DEVELOPMENT



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

QUALIFICATION:

National Certificate: Aircraft Maintenance and Overhaul

SAQA QUAL ID	QUALIFICATION TITLE	
48861	National Certificate: Aircraft Maintenance and Overhaul	
SGB NAME	SGB Aircraft Maintenance and Overhaul	
ABET BAND	PROVIDER NAME	
Undefined		
QUALIFICATION CODE	QUAL TYPE	SUBFIELD
MET-4-National Certificate	National Certificate	Manufacturing and Assembly
MINIMUM CREDITS	NQF LEVEL	QUALIFICATION CLASS
180	Level 4	Regular-Unit Stds Based
SAQA DECISION NUMBER	REGISTRATION START DATE	REGISTRATION END DATE

PURPOSE OF THE QUALIFICATION

This qualification is aimed at people who are working within an Aircraft Maintenance and Overhaul function with a view to being recognised as fully fledged aircraft maintenance artisans and technicians. Typically, they will be people in organisational training schemes, developing their skills towards this qualification. Candidates may also be apprentices or artisans qualified in trades outside the aeronautical industry who wish to develop their skills for aeronautical applications. In particular this qualification will be useful for:

- > Aircraft mechanical maintenance artisans
- > Aircraft electricians
- > Aircraft radio, radar and instruments technicians
- > Aircraft structural maintenance and repair technicians

This qualification is designed to be flexible and accessible so that people are able to demonstrate the competencies required to work safely and productively in the different disciplines within an Aircraft Maintenance and Overhaul environment. Recipients of this qualification will have knowledge and skills in the areas of fundamental life skills; safety, health, environment & quality; and one of aircraft mechanical maintenance and aircraft mechanical repair and overhaul; aircraft power plant maintenance and aircraft power plant repair and overhaul; core electrical; electrical, instruments and radio; aeronautical composites and aircraft structures.

Recipients of this qualification will be able to:

- > Communicate in a variety of ways
- > Use mathematics in real life situations
- > Operate safely in an engineering workshop environment
- > Apply aircraft mechanical maintenance, repair and overhaul knowledge and skill, or
- > Apply aircraft power plant maintenance, repair and overhaul skills and knowledge, or
- > Apply electrical, instruments and radio knowledge within an aeronautical context, or
- > Apply aeronautical composites and aircraft structures knowledge and skills

The detail of what the learner will know and achieve is specified in the Exit Level Outcomes.

Artisans and Technicians will generally carry out their role within the context of:

- > Set maintenance mechanical and/or electrical engineering procedures
- > Given administration systems

- > Given inspection and testing procedures
- > Given Quality Assurance policies, procedures and processes (including FAA and JAR)
- > The framework of CAA regulations and licensing requirements

Rationale for the qualification:

The majority of the candidates for this qualification are likely to have completed the introductory courses to aircraft maintenance within the aerospace sector, and wish to progress within a chosen field of specialisation. This qualification will give them the opportunity to develop and balance their practical skills with the essential knowledge needed to earn a formal qualification in Aircraft Maintenance and Overhaul - Aeronautical Engineering, without formal education becoming an impassable barrier.

There is a critical need in the industry to identify people who have a sound foundation in the engineering trades equivalent to NQF Level 2 or N1, and have begun to specialise in a mechanical and/or electrical direction at Level 3. This qualification will provide for them the opportunity to develop the specific and complex skills demanded of Technicians within a safety conscious and highly regulated industry.

This qualification also recognises that candidates may specialise in a variety of directions, and provides for this eventuality. The certificate will be issued as either:

- > National Certificate: Aircraft Maintenance and Overhaul - Mechanical (L4)
- OR
- > National Certificate: Aircraft Maintenance and Overhaul - Electrical (L4)
- OR
- > National Certificate: Aircraft Maintenance and Overhaul - Electro-Mechanical (L4)
- OR
- > National Certificate: Aircraft Maintenance and Overhaul - Instruments (L4)
- OR
- > National Certificate: Aircraft Maintenance and Overhaul - Radio (L4)
- OR
- > National Certificate: Aircraft Maintenance and Overhaul - Structural (L4)

The Aerospace Industry in South Africa must comply with international aviation standards. Conventional artisan and engineering training in this country (and others) does not produce people capable of working at the levels required by international aviation license requirements. The degree of sophistication and expertise requires specialist input and time-related on-the-job mentored experience for legal compliance alone.

In addition, the future of the industry in South Africa depends heavily on the ability of the Technical Divisions of major companies to obtain and fulfil international service contracts. International airlines require high standards of performance supported by international aviation licensing. Unit standards would provide a clear description for providers of the levels and nature of skills required by the industry. They would also provide for assessment that confirmed the required degree of competence.

A further consideration is that, for transformation purposes, large numbers of enthusiastic but generally poorly trained people need access to high quality learning and assessment opportunities if they are to meet the requirements of the aviation industry. The possibilities for incremental learning, which builds on generic engineering training, must be created if the industry is to make the equitable distribution of skills a reality. In this sense, the aims of the SGB are consistent with SAQA's own transformation goals, and with principles of access and articulation.

Finally, there are people who have been working in the industry for some time, and who have gained the additional skills and expertise required through systematic on-the-job training. The national recognition framework can make an invaluable contribution to personal and enterprise skills development by providing for the recognition of the skills gained in this manner, through a systematic RPL process.

In summary, the purpose of the unit standards and qualifications generated by the SGB would be to:

- > Describe the standard required for competent performance in the international arena
- > Provide clear guidelines and "targets" for training providers, which also promotes accountability
- > Provide a recognition framework that would allow for RPL
- > Provide access and progression via coherent learning pathways for engineering trainees wishing to consider a career in aerospace

> Provide access to candidates formerly denied opportunities for a career in aerospace, which in turn promotes personal (and thus national) skills development

RECOGNIZE PREVIOUS LEARNING?

Y

LEARNING ASSUMED TO BE IN PLACE

It is assumed that candidates embarking on learning towards this qualification are already competent in the following areas:

- > Communication skills (Language at NQF level 3).
- > Maths skills (NQF level 3)

In addition it is assumed that learners already hold a National Certificate: Aeronautical Engineering - Mechanical/Electrical (Level 3) or equivalent competence.

Recognition of Prior Learning:

This qualification can be achieved wholly or in part through recognition of prior learning in terms of the defined exit level outcomes and/or individual unit standards.

Evidence can be presented in various ways, including international and/or previous local qualifications, products, reports, testimonials mentioning functions performed, work records, portfolios, videos of practice and performance records.

All such evidence will be judged in accordance with the general principles of assessment described above and the requirements for integrated assessment.

QUALIFICATION RULES

Fundamental:

- > Communication - Candidates are required to achieve all 40 credits for Communications.
- > In terms of the requirements for an FETC, candidates are required to achieve 20 credits obtained in a second official language at a minimum of level 3.
- > Mathematical Literacy - Candidates are required to demonstrate achievement of the 16 credits for the Mathematics unit standards.

Note: Mathematical Literacy is defined as the ability to apply basic mathematics within a variety of real life contexts.

Core:

Candidates must achieve all 45 CORE credits listed in Exit level outcomes 3, 4, 5, 6.

Elective:

Candidates must achieve at least 84 credits of their choice from specialisation clusters of ELECTIVE credits in Exit Level Outcomes 7 to 19, to achieve the full qualification.

Candidates who wish to achieve the whole qualification with a particular 'trade endorsement' must meet the rules of combination for each of the areas of specialisation which comprise an 'endorsement' for the qualification. The possibilities are:

1. National Certificate: AMO - Mechanical (Level 4)

> Exit Level Outcome 6, 7, 8, 9, 10, 11

> ELO 6 provides useful background to airframe and engine maintenance, and can be taken in conjunction with any of the other Mechanical Electives.

> ELO 8 will allow candidates to specialise in aircraft system maintenance and repair.

> Exit Level Outcome 7 (general power plant maintenance and testing) is a pre-requisite with either of ELO 9 (piston engine), 10 (gas turbine engine) or 11 (rotary winged aircraft).

2. National Certificate: AMO - Electrical (Level 4)

> Candidates are required to achieve all 16 credits from ELO 12 in order to qualify for this endorsement.

> A further minimum of 68 credits of the available 110 electrical credits (ELO 13) must be achieved for this qualification.

3. National Certificate: AMO - Electro-Mechanical (Level 4)

> Candidates seeking this endorsement must achieve ELO 12.

> A further minimum of 68 credits must be chosen from ELOs 6, 7, 8, 9, 10, 11, 13 and 14. The unit standard combination to achieve these credits will depend on enterprise specific requirements for Electro-Mechanical personnel.

4. National Certificate: AMO - Instruments (Level 4)

> Candidates seeking this endorsement must achieve ELO 12.

> A further minimum of 68 credits must be achieved from ELO 14.

5. National Certificate: AMO - Radio (Level 4)

> Candidates seeking this endorsement must achieve ELO 12.

> A further minimum of 68 credits must be achieved from ELO 15.

6. National Certificate: AMO - Structural (Level 4)

> Candidates seeking this endorsement must achieve a minimum of 84 credits from ELO 16.

Candidates who wish to achieve more than one 'trade endorsement' must achieve the FUNDAMENTAL and CORE requirements, plus elective requirements for each of the other areas of specialisation which comprise an 'endorsement' for the qualification.

EXIT LEVEL OUTCOMES

Fundamental:

Exit Level Outcome 1: Communicate in a variety of ways - [possible 40 credits]

Language of application:

> Engage in sustained oral communication and evaluate spoken texts, Level 4, 5 credits.

> Read, analyse and respond to a variety of texts, Level 4, 5 credits.

> Write for a wide range of contexts, Level 4, 5 credits.

> Use language and communication in occupational learning programmes, Level 4, 5 credits.

Additional Language:

> Use language and communication in occupational learning programmes, Level 3, 5 credits.

> Accommodate audience and context needs in oral communication, Level 3, 5 credits.

> Interpret and use information from texts, Level 3, 5 credits.

> Write texts for a range of communicative contexts, Level 3, 5 credits.

Exit Level Outcome 2: Use mathematics in real life situations - [possible 16 credits]

> Use mathematics to investigate and monitor the financial aspects of personal, business, and national issues, Level 4, 6 credits

> Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life-related problems, Level 4, 6 credits.

> Measure, estimate and calculate physical quantities and explore, critique and prove geometrical relationships in two and three-dimensional space in the life and workplace of the adult with increasing responsibilities, Level 4, 4 credits.

Core:

Exit Level Outcome 3: Apply the basic principles of aircraft inspection - [possible 16 credits]

> Demonstrate knowledge of key aviation principles and regulations for aircraft maintenance personnel, Level 3, 4 credits.

> Inspect and maintain aircraft in storage, Level 3, 6 credits.

> Conduct before, between, and after flight inspections, Level 4, 6 credits.

Exit Level Outcome 4: Demonstrate basic understanding of the electrical aspects of aircraft - [possible 15 credits]

- > Demonstrate knowledge of electrical and electronic components, Level 2, 3 credits.
- > Demonstrate knowledge of electrical safe working practices, Level 2, 2 credits.
- > Apply avionics repair skills, Level 3, 10 credits.

Exit Level Outcome 5: Demonstrate knowledge of maintenance, repair and overhaul practices - [possible 14 credits]

- > Demonstrate knowledge of aircraft power plant maintenance practices, Level 3, 6 credits.
- > Demonstrate knowledge of aircraft mechanical component repair and overhaul practices, Level 3, 8 credits.

Electives:

Exit Level Outcome 6: Apply fundamental principles for inspecting and maintaining airframes and aircraft engines within an aerospace maintenance and overhaul environment - [possible 33 credits]

- > Inspect and maintain aircraft airframe systems, Level 4, 24 credits.
- > Inspect and maintain aircraft engines, Level 4, 9 credits.

Exit Level Outcome 7: Inspect, maintain and test aircraft power plants, rotating assemblies and propellers in an aerospace maintenance and overhaul environment - [possible 40 credits]

- > Balance aeronautical rotating assemblies, Level 3, 4 credits.
- > Inspect and maintain aircraft piston engines and transmissions, Level 4, 20 credits.
- > Test aircraft engines on a test bed, Level 4, 6 credits.
- > Assemble, inspect and maintain aircraft propellers, Level 4, 10 credits.

Exit Level Outcome 8: Carry out aircraft mechanical system repair and overhaul - [possible 103 credits]

- > Repair, replace, modify and/or adjust aircraft fuel tanks and distribution system components, Level 4, 15 credits.
- > Repair, replace, modify and/or adjust aircraft landing gear system components, Level 4, 8 credits.
- > Repair, replace, modify and/or adjust aircraft hydraulic system components, Level 4, 15 credits.
- > Repair, replace, modify and/or adjust aircraft air conditioning, pressurisation, and ice and rain protection system components, Level 4, 15 credits.
- > Repair, replace, modify and/or adjust aircraft oxygen system components, Level 4, 25 credits.
- > Repair, replace, modify and/or adjust aircraft pneumatic power supply system components, Level 4, 15 credits.
- > Repair, replace, modify and/or adjust aircraft water and waste system components, Level 4, 10 credits.

Exit Level Outcome 9: Apply the fundamental principles for the repair of piston aircraft engines and drive components - [possible 59 credits]

- > Repair, replace, modify and/or adjust aircraft gearboxes and transmissions and engine lubrication system components, Level 4, 15 credits.
- > Repair, replace, modify and/or adjust aircraft propellers, Level 4, 20 credits.
- > Repair, replace, modify and/or adjust aircraft piston engine fuel system components, Level 4, 12 credits.
- > Repair, replace, modify and/or adjust aircraft piston engines, Level 4, 12 credits.

Exit Level Outcome 10: Apply the fundamental principles for the maintenance and repair of jet aircraft - [possible 79 credits]

- > Inspect and maintain aircraft gas turbine auxiliary power units, Level 4, 15 credits.
- > Inspect and maintain aircraft gas turbine engine power augmentation or restoration systems, Level 4, 4 credits.
- > Inspect and maintain aircraft gas turbine power plants, Level 4, 19 credits.
- > Repair, replace, modify and/or adjust aircraft gas turbine engine fuel control units and system components, Level 4, 12 credits.

- > Repair, replace, modify and/or adjust aircraft gas turbine engine components, Level 4, 25 credits.
- > Repair, replace, modify and/or adjust gas turbine engine power augmentation or restoration system components, Level 4, 4 credits.

Exit Level Outcome 11: Apply the fundamental principles for the maintenance and repair of helicopters - [possible 32 credits]

- > Service rotary winged aircraft, Level 3, 4 credits.
- > Assemble, track and balance helicopter main and tail rotors, Level 4, 4 credits.
- > Inspect and maintain helicopter drive trains, Level 4, 4 credits.
- > Inspect and maintain helicopter flight control systems, Level 4, 2 credits.
- > Inspect and maintain helicopter rescue winches, Level 4, 2 credits.
- > Repair, replace, and/or adjust helicopter belt-drive components and metal rotor blades, Level 4, 4 credits.
- > Repair, replace, and/or adjust helicopter cargo suspension hooks and rescue hoists, Level 4, 4 credits.
- > Repair, replace and/or adjust helicopter drive shaft assemblies, Level 4, 8 credits.

Exit Level Outcome 12: Demonstrate basic aircraft electrical knowledge - [possible 16 credits]

- > Demonstrate knowledge of capacitors, semiconductor diodes, and rectification, Level 2, 2 credits.
- > Demonstrate knowledge of single phase transformers, Level 3, 2 credits.
- > Draw and interpret electrical diagrams, Level 3, 2 credits.
- > Demonstrate understanding of component disassembly, inspection, repair and assembly techniques, Level 4, 4 credits.
- > Use electrical test equipment to perform basic electrical tests, Level 3, 1 credit.
- > Fabricate aircraft electrical looms and harnesses, Level 3, 5 credits.

Exit Level Outcome 13: Service, repair and maintain aircraft electrical systems and components - [possible 110 credits]

- > Install aircraft electrical wiring, Level 4, 10 credits.
- > Remove and install major aircraft electrical components, Level 4, 5 credits.
- > Remove and install miscellaneous aircraft electrical hardware/components, Level 4, 10 credits.
- > Repair and maintain AC and DC motors, Level 4, 10 credits.
- > Inspect, test and troubleshoot aircraft electrical systems and components, Level 4, 20 credits.
- > Repair or overhaul aircraft electrical and electro-mechanical components, Level 4, 15 credits.
- > Repair and maintain protection and control systems, Level 4, 10 credits.
- > Repair and maintain distribution system components, Level 4, 10 credits.
- > Repair and maintain electrical system components, Level 4, 10 credits.
- > Manufacture and/or repair aircraft electrical components or parts, Level 4, 10 credits.

Exit Level Outcome 14: Repair and maintain instrument system components - [possible 84 credits]

- > Use a handheld compass to perform a basic compass swing, Level 3, 4 credits.
- > Repair and maintain electrical instrument components, Level 4, 25 credits.
- > Repair and maintain mechanical instrument components, Level 4, 10 credits.
- > Repair and maintain instrumentation components, Level 4, 25 credits.
- > Repair and maintain aircraft optical system components, Level 4, 20 credits.

Exit Level Outcome 15: Repair and maintain radio and radar system components - [possible 81 credits]

- > Identify faults and replace components in communication devices and systems, Level 3, 10 credits.
- > Identify faults and replace components in pulse navigational aid systems, Level 3, 8 credits.
- > Identify faults and replace components in non-pulse navigational aid systems, Level 3, 8 credits.
- > Repair and maintain communication devices and systems, Level 4, 15 credits.
- > Demonstrate understanding of Antenna systems, Level 4, 10 credits.
- > Repair and maintain pulse navigational aid systems, Level 4, 10 credits.
- > Repair and maintain non-pulse navigational aid systems, Level 4, 20 credits.

Exit Level Outcome 16: Fabricate and repair aircraft structures - [possible 93 credits]

- > Balance aircraft flight control surfaces, Level 3, 7 credits.

- > Cold work holes in aeronautical aluminium alloys, Level 3, 3 credits.
- > Form aeronautical sheet metal by cutting, Level 3, 10 credits.
- > Assemble aeronautical metal components and/or composites by bonding, Level 4, 10 credits.
- > Assemble aircraft metal components using fasteners, Level 4, 20 credits.
- > Form aeronautical sheet metal by folding, Level 4, 3 credits.
- > Form aeronautical sheet metal by rubber pressing, Level 4, 10 credits.
- > Repair and/or fabricate aeronautical component parts by welding, Level 5, 8 credits.
- > Repair and/or modify aircraft metal structures, Level 4, 15 credits.
- > Visually inspect aircraft structures, Level 4, 3 credits.
- > Identify and prevent corrosion in the aeronautical industry, Level 4, 4 credits.

Critical Cross-Field Outcomes:

This qualification addresses the following critical cross-field outcomes, as detailed in the associated unit standards:

- a) Identifying and solving problems in which responses indicate that responsible decisions using critical and creative thinking have been made.
This outcome is supported in particular by the following ELOs: 3, 9, 10, 11, 12, 14, 15, 16 and 17.
- b) Working effectively with others as a member of a team, group, organisation or community.
This outcome is supported in particular by the following ELOs: 7, 8, 9, 10, 11, 12, 14, 15, 16 and 17 since in most cases repair and overhaul work is conducted in teams, and where it may not be possible for individuals to complete tasks without assistance.
- c) Organising and managing oneself and one's activities responsibly and effectively.
This outcome is supported in particular by the following ELOs: 7 - 12, and 14 - 17.
- d) Collecting, analysing, organising and critically evaluating information.
This outcome is supported in particular by the following ELOs: 3, 7, 8, 9, 10, 11, 12, 14, 15, 16 and 17.
- e) Communicating effectively using visual, mathematical and/or language skills in the modes of oral/written persuasion.
This outcome is supported in general terms through reporting requirements, and the processing of texts in the form of procedures, specifications and regulations throughout the repair and maintenance ELOs.
- f) Using science and technology effectively and critically, showing responsibility towards the environment and health of others.
This outcome is supported throughout in a highly technical environment.
- g) Demonstrating and understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.
This outcome is supported in particular by the following ELOs: 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 and 17. The maintenance and repair function that is at the heart of the qualification deals primarily with interrelated systems within the context of air safety.

Learning programmes directed towards this qualification will also contribute to the full personal development of each learner and the social and economic development of the society at large, by making individuals aware of the importance of:

- 1) Reflecting on and exploring a variety of strategies to learn more effectively.
- 2) Participating as responsible citizens in the life of local, national and global communities.
- 3) Being culturally and aesthetically sensitive across a range of social contexts.
- 4) Exploring education and career opportunities; and developing entrepreneurial opportunities.

ASSOCIATED ASSESSMENT CRITERIA

For award of the qualification, candidates must achieve the required number of credits as specified in the rules of combination. This means candidates must achieve Exit Level Outcomes 1, 2, 3, 4, 5, and 6, plus the additional Elective credits specified for the qualification in ELOs 7 to 18.

Should candidates exit the qualification without completing the whole qualification, recognition may be given for each Exit Level Outcome achieved. For award of a particular Exit Level Outcome, candidates must achieve:

- > All the Core and Elective unit standards associated with the particular Exit Level Outcome as per the specifications contained within each unit standard, and
- > The criteria specified below.

Assessment Criteria for Exit Level Outcome 1 [Fundamental]:

> Communication within the maintenance function and across departments about maintenance activities, problem-solving and repair processes is clear, understandable and effective.

Assessment Criteria for Exit level Outcome 2 [Fundamental]:

> The mathematics is applied within a variety of maintenance and repair contexts.

Assessment Criteria for Exit Level Outcome 3 [Core]:

> The identification of irregularities and/or potential problems during inspections is consistent with current theories of the principles of flight.

> Inspections carried out comply with inspection schedules; international, national and company specific procedures, and all aspects of aviation law.

Assessment Criteria for Exit Level Outcome 4 [Core]:

> Electrical and electronic components are accurately identified and differentiated in terms of their purpose and function.

> The description of electrical safe practices is consistent with current legislation, and general electrical and electronic work and avionics skills are applied according to best practice, aviation regulations and company requirements.

Assessment Criteria for Exit Level Outcome 5 [Core]:

> Knowledge of aircraft power plant maintenance practices is current, accurate and provides a sound foundation for the development of practical maintenance skills.

> Knowledge of aircraft mechanical component repair and overhaul practices is current, accurate and provides a sound foundation for the development of practical repair and overhaul skills.

Assessment Criteria for Exit Level Outcome 6 [Mechanical Elective]:

> The principles of inspection and aircraft system maintenance practices are applied consistently to the maintenance of a wide variety of airframe systems, including air-conditioning, pressurisation, fuel storage and distribution, hydraulic, landing, flight control, ice and rain protection, pneumatic, water and waste, fire protection systems.

> The principles of inspection and maintenance are applied to the maintenance of aircraft engines, including engines, engine fuel systems, and engine lubrication systems.

Assessment Criteria for Exit Level Outcome 7 [Mechanical Elective]:

> The principles of inspection and power plant maintenance practices are applied consistently to the maintenance of a range of piston aircraft engines and transmissions.

> Testing of piston engines on test beds complies with aviation regulations, maintenance documentation and enterprise procedures.

> Static balancing and/or dynamic balancing is carried out to industry accepted standards.

> Documentation relating to testing and/or maintenance and repair is completed in accordance with CAA regulations and enterprise procedures.

Assessment Criteria for Exit Level Outcome 8 [Mechanical Elective]:

> Practical engineering skills are applied consistently to the identification of irregularities, and the repair and/or modification of a wide variety of mechanical systems including air-conditioning, pressurisation, and ice and rain protection systems; fuel storage and distribution systems; aircraft hydraulic system components; landing gear system components; aircraft oxygen system components; aircraft pneumatic power supply system components, and water and waste system components.

> Problem solving and fault-finding complies with accepted industry practices and CAA regulations.

> Repair and/or modification complies with accepted industry practices and CAA regulations.

Assessment Criteria for Exit Level Outcome 9 [Mechanical Elective]:

> Practical engineering skills are applied consistently to the identification of irregularities, and the repair, replacement and/or modification of a wide range of aircraft piston engines; gearboxes and transmissions; engine lubrication system components; fuel system components; and variable and fixed pitch propeller assemblies.

> All repair and overhaul activities are consistent with aeronautical repair + overhaul practices

Assessment Criteria for Exit Level Outcome 10 [Mechanical Elective]:

> The principles of inspection and power plant maintenance practices are applied consistently to the

maintenance of aircraft gas turbine power plants; auxiliary power units; power augmentation and restoration systems.

> Practical engineering skills are applied consistently to the identification of irregularities, and the repair, replacement and/or modification of a wide range of aircraft gas turbine engines; power augmentation and restoration systems; engine fuel control units and system components.

> All repair and overhaul activities are consistent with aeronautical repair and overhaul practices.

Assessment Criteria for Exit Level Outcome 11 [Mechanical Elective]:

> The principles of inspection and rotary winged aircraft maintenance practices are applied consistently to the service and maintenance of rotor assemblies; drive trains; and winches.

> Practical engineering skills are applied consistently to the identification of irregularities, and the repair, replacement and/or modification of belt-drive components and rotor blades; hoists; and drive train and rotor assemblies.

> All repair and overhaul activities are consistent with aeronautical repair + overhaul practices.

Assessment Criteria for Exit Level Outcome 12 [Electrical/Electro-Mechanical/Radio/Instruments]:

> Key electrical components are accurately identified in terms of their purpose, function and typical application.

> The description of techniques for the disassembly, inspection, repair and replacement of key electrical components is consistent with accepted industry practice.

> The application of drawing and basic fabrication techniques for common electrical looms and harnesses, is consistent with best practice and demonstrates a sound grasp of electrical principles.

> Common test equipment is used in accordance with design and purpose across a range of basic electrical tests.

Assessment Criteria for Exit Level Outcome 13 [Electrical Elective]:

> A range of problem-solving and trouble-shooting techniques is applied to identify typical faults or irregularities in aircraft electrical systems and components.

> The removal and installation of electrical hardware and components is carried out in compliance with CAA regulations, set procedures and accepted industry practices.

> Practical electrical skills are applied consistently to the identification of irregularities, and the repair, replacement and/or maintenance of aircraft electrical systems and components or parts.

Assessment Criteria for Exit Level Outcome 14 [Instruments Elective]:

> A range of problem-solving and trouble-shooting techniques is applied to identify typical faults or irregularities in aircraft mechanical and electrical instrument systems and components.

> The repair and maintenance of instrument systems and components is carried out in compliance with CAA regulations, set procedures and accepted industry practices.

Assessment Criteria for Exit Level Outcome 15 Radio/Radar Elective]:

> A range of problem-solving and trouble-shooting techniques is applied to identify typical faults or irregularities in aircraft and ground-based navigational aid systems and components; communication devices and systems; and antenna systems.

> The repair and maintenance of aircraft and ground-based navigational aid systems and components and communication devices and systems, is carried out in compliance with CAA regulations, set procedures and accepted industry practices.

Assessment Criteria for Exit Level Outcome 16 [Structural Elective]:

> Visual inspections are thorough and detect irregularities, including corrosion, for preventative maintenance and/or repair.

> Balancing, forming, bending and crimping work is carried out for a range of aeronautical metal components and structures to industry accepted standards and procedures.

> Practical structural skills, including welding, are applied consistently to the identification of irregularities, and the repair, modification and/or maintenance of aeronautical aluminium alloys.

Integrated assessment:

Assessment will take place according to the detailed specifications indicated in the unit standards associated with each exit level outcome. Over and above these specifications, evidence of integration will be displayed through the achievement of the broad criteria for each exit level outcome listed above, all within the context of a workshop environment.

INTERNATIONAL COMPARABILITY

This qualification and the component unit standards have been compared with similar qualifications from the following countries:

- > New Zealand
- > Australia

Both countries have comparable qualifications. This qualification requires the Maintenance Artisan to develop skills and work autonomously at levels comparable to those in the Australian and New Zealand qualifications. This is consistent with the highly regulated nature of the industry and its international character.

ARTICULATION OPTIONS

The following shows the relationship between this qualification and other qualifications within the field:

- > N.Dip: AET Mechanical - L5; NC: AMO Mechanical - L4
- > N.Dip: AET Electrical - L5; NC: AMO Electrical - L4
- > N.Dip: AET Elec/Mech - L5; NC: AMO Elec/Mech - L4
- > N.Dip: AET Radio - L5; NC: AMO Radio - L4
- > N.Dip: AET Instruments - L5; NC: AMO Instruments - L4
- > N.Dip: AET Structural - L5; NC: AMO Structural - L4
- > NC: Aircraft Maintenance and Overhaul - Mechanical/Electrical - L3
- > NC: Mechanical Maintenance Assistant in Aeronautical Engineering - L2

The Levels 2 and 3 qualifications are National Certificates offering a grounding in engineering practices (Level 2), and the basics of aeronautical engineering with Mechanical and Electrical elective options (Level 3). Levels 4 and 5 both make provision for specialisation in key areas.

Horizontal articulation within the Level 4 Certificate is possible by building on the common core, and achieving the credits specified in each of the elective components of the qualification, mainly related to specialisation areas particular to each sub-field.

Vertical articulation is possible using this qualification as the basis for any of the qualification options indicated above at level 5, although in most cases, some standards will be required horizontally before moving to another sub-field vertically.

MODERATION OPTIONS

- > Providers offering learning towards achievement of any of the unit standards that make up this qualification must be accredited through 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.
- > Internal moderation of assessment must take place at the point of assessment with external moderation provided by the relevant ETQA according to the moderation guidelines and the agreed ETQA procedures.

CRITERIA FOR THE REGISTRATION OF ASSESSORS

Assessors must be registered in terms of the requirements of SAQA and the ETDP SETA ETQA.

Assessment principles:

Assessment should be in accordance with the following general and specific principles:

- > The initial assessment activities should focus on gathering evidence in terms of the main outcomes

expressed in the titles of the unit standards to ensure assessment is integrated rather than fragmented. Where assessment at title level is unmanageable, then the assessment can focus on each specific outcome, or groups of specific outcomes. Take special note of the need for integrated assessment.

> Evidence must be gathered across the entire range specified in each unit standard, as applicable. Assessment activities should be as close to the real performance as possible, and where simulations or role-plays are used, there should be supporting evidence to prove that the candidate is able to perform in the real situation.

> All assessments should be conducted in accordance with the following universally accepted principles of assessment:

- > Use appropriate, fair manageable methods, that are integrated into real work or learning situations;
- > Judge evidence on the basis of its validity, currency, authenticity and sufficiency; and
- > Ensure assessment processes are systematic, open and consistent.

NOTES

Endorsed for either:

Mechanical/Electrical/Electro-Mechanical/Instruments/Radio/Avionics/Structural (NC AMO 4)

UNIT STANDARDS

(Note: A blank space after this line means that the qualification is not based on Unit Standards.)

	UNIT STANDARD ID AND TITLE	LEVEL	CREDITS	STATUS
Core	115230 Demonstrate knowledge of electrical and electronic components	Level 2	3	Draft - Prep for P Comment
Core	115234 Demonstrate knowledge of electrical safe working practices	Level 2	2	Draft - Prep for P Comment
Core	115239 Demonstrate knowledge of key aviation principles and regulations for aircraft maintenance personnel	Level 3	4	Draft - Prep for P Comment
Core	115240 Inspect and maintain aircraft in storage	Level 3	6	Draft - Prep for P Comment
Core	115241 Demonstrate knowledge of aircraft power plant maintenance practices	Level 3	6	Draft - Prep for P Comment
Core	115253 Demonstrate knowledge of aircraft mechanical component repair and overhaul practices	Level 3	8	Draft - Prep for P Comment
Core	115357 Apply avionic repair skills	Level 3	10	Draft - Prep for P Comment
Core	115254 Conduct before, between, and after flight inspections	Level 4	6	Draft - Prep for P Comment
Elective	115238 Demonstrate knowledge of capacitors, semiconductor diodes, and rectification	Level 2	3	Draft - Prep for P Comment
Elective	115242 Draw and interpret electrical diagrams	Level 3	3	Draft - Prep for P Comment
Elective	115243 Use electrical test equipment to perform basic electrical tests	Level 3	4	Draft - Prep for P Comment
Elective	115244 Demonstrate knowledge of single phase transformers	Level 3	3	Draft - Prep for P Comment
Elective	115245 Fabricate aircraft electrical looms and harnesses	Level 3	10	Draft - Prep for P Comment
Elective	115246 Cold work holes in aeronautical aluminium alloys	Level 3	4	Draft - Prep for P Comment
Elective	115248 Use a handheld compass to perform a basic compass swing	Level 3	4	Draft - Prep for P Comment
Elective	115250 Form aeronautical sheet metal by cutting	Level 3	10	Draft - Prep for P Comment
Elective	115251 Identify faults and replace components in communication devices and systems	Level 3	10	Draft - Prep for P Comment
Elective	115255 Identify faults and replace components in pulse navigational aid systems	Level 3	8	Draft - Prep for P Comment
Elective	115259 Identify faults and replace components in non-pulse navigational aid systems	Level 3	8	Draft - Prep for P Comment
Elective	115263 Balance aircraft flight control surfaces	Level 3	10	Draft - Prep for P Comment

Elective	115272 Service rotary winged aircraft	Level 3	4	Draft - Prep for P Comment
Elective	115332 Balance aeronautical rotating assemblies	Level 3	4	Draft - Prep for P Comment
Elective	115247 Repair, replace, modify and/or adjust aircraft hydraulic system components	Level 4	15	Draft - Prep for P Comment
Elective	115249 Repair, replace, modify and/or adjust aircraft air conditioning, pressurisation, and ice and rain protection system components	Level 4	15	Draft - Prep for P Comment
Elective	115252 Repair, replace, modify and/or adjust aircraft pneumatic power supply system components	Level 4	15	Draft - Prep for P Comment
Elective	115256 Inspect and maintain aircraft airframe systems	Level 4	24	Draft - Prep for P Comment
Elective	115257 Repair, replace, modify and/or adjust aircraft water and waste system components	Level 4	10	Draft - Prep for P Comment
Elective	115258 Inspect and maintain aircraft gas turbine engine power augmentation or restoration systems	Level 4	4	Draft - Prep for P Comment
Elective	115260 Repair, replace, modify and/or adjust aircraft gearboxes, transmissions and engine lubrication system components	Level 4	15	Draft - Prep for P Comment
Elective	115261 Inspect and maintain aircraft gas turbine power plants	Level 4	19	Draft - Prep for P Comment
Elective	115262 Inspect and maintain aircraft engines	Level 4	9	Draft - Prep for P Comment
Elective	115264 Repair, replace, modify and/or adjust aircraft landing gear system components	Level 4	8	Draft - Prep for P Comment
Elective	115265 Repair, replace, modify and/or adjust gas turbine engine power augmentation or restoration system components	Level 4	4	Draft - Prep for P Comment
Elective	115266 Repair, replace, modify and/or adjust aircraft propellers	Level 4	20	Draft - Prep for P Comment
Elective	115267 Assemble, track and balance helicopter main and tail rotors	Level 4	4	Draft - Prep for P Comment
Elective	115268 Repair, replace, modify and/or adjust aircraft fuel tanks and distribution system components	Level 4	15	Draft - Prep for P Comment
Elective	115269 Inspect and maintain helicopter flight control systems	Level 4	8	Draft - Prep for P Comment
Elective	115270 Repair, replace, modify and/or adjust aircraft piston engine fuel system components	Level 4	12	Draft - Prep for P Comment
Elective	115271 Inspect and maintain helicopter drive trains	Level 4	4	Draft - Prep for P Comment
Elective	115273 Repair, replace, modify and/or adjust aircraft piston engines	Level 4	12	Draft - Prep for P Comment
Elective	115274 Assemble aeronautical metal components and/or composites by bonding	Level 4	10	Draft - Prep for P Comment
Elective	115275 Inspect and maintain aircraft piston engines and transmissions	Level 4	20	Draft - Prep for P Comment
Elective	115276 Inspect and maintain helicopter rescue winches	Level 4	8	Draft - Prep for P Comment
Elective	115277 Inspect and maintain aircraft gas turbine auxiliary power units	Level 4	15	Draft - Prep for P Comment
Elective	115278 Test aircraft engines on a test bed	Level 4	6	Draft - Prep for P Comment
Elective	115279 Repair and maintain electrical instrument components	Level 4	25	Draft - Prep for P Comment
Elective	115280 Repair, replace and/or adjust helicopter belt-drive components and metal rotor blades	Level 4	4	Draft - Prep for P Comment
Elective	115281 Repair and maintain communication devices and systems	Level 4	15	Draft - Prep for P Comment
Elective	115282 Repair and maintain mechanical instrument components	Level 4	10	Draft - Prep for P Comment
Elective	115283 Repair, replace and/or adjust helicopter drive shaft assemblies	Level 4	8	Draft - Prep for P Comment
Elective	115284 Demonstrate understanding of antenna systems	Level 4	10	Draft - Prep for P Comment
Elective	115285 Demonstrate understanding of component disassembly, inspection, repair and assembly techniques	Level 4	4	Draft - Prep for P Comment

Elective	115286 Repair and maintain pulse navigational aid systems	Level 4	10	Draft - Prep for P Comment
Elective	115287 Repair and maintain instrumentation components	Level 4	25	Draft - Prep for P Comment
Elective	115288 Repair and maintain non-pulse navigational aid systems	Level 4	20	Draft - Prep for P Comment
Elective	115289 Assemble aircraft metal components using fasteners	Level 4	10	Draft - Prep for P Comment
Elective	115290 Form aeronautical sheet metal by folding	Level 4	3	Draft - Prep for P Comment
Elective	115291 Repair and maintain aircraft optical system components	Level 4	20	Draft - Prep for P Comment
Elective	115292 Repair and/or modify aircraft metal structures	Level 4	15	Draft - Prep for P Comment
Elective	115293 Form aeronautical sheet metal by rubber pressing	Level 4	15	Draft - Prep for P Comment
Elective	115294 Visually inspect aircraft structures	Level 4	4	Draft - Prep for P Comment
Elective	115295 Identify and prevent corrosion in the aeronautical industry	Level 4	3	Draft - Prep for P Comment
Elective	115333 Repair, replace and/or adjust helicopter cargo suspension hooks and rescue hoists	Level 4	4	Draft - Prep for P Comment
Elective	115335 Assemble, inspect and maintain aircraft propellers	Level 4	10	Draft - Prep for P Comment
Elective	115336 Repair, replace, modify and/or adjust aircraft oxygen system components	Level 4	25	Draft - Prep for P Comment
Elective	115338 Repair, replace, modify and/or adjust aircraft gas turbine engine fuel control units and system components	Level 4	12	Draft - Prep for P Comment
Elective	115341 Install aircraft electrical wiring	Level 4	10	Draft - Prep for P Comment
Elective	115342 Repair and maintain AC and DC motors	Level 4	10	Draft - Prep for P Comment
Elective	115343 Remove and install major aircraft electrical components	Level 4	15	Draft - Prep for P Comment
Elective	115344 inspect, test and troubleshoot aircraft electrical systems and components	Level 4	20	Draft - Prep for P Comment
Elective	115346 Repair or overhaul aircraft electrical/electro-mechanical components	Level 4	15	Draft - Prep for P Comment
Elective	115347 Remove and install miscellaneous aircraft electrical hardware and/or components	Level 4	10	Draft - Prep for P Comment
Elective	115349 Repair and maintain distribution system components	Level 4	10	Draft - Prep for P Comment
Elective	115350 Manufacture and/or repair aircraft electrical components or parts	Level 4	10	Draft - Prep for P Comment
Elective	115351 Repair and maintain protection and control systems	Level 4	10	Draft - Prep for P Comment
Elective	115355 Repair, replace, modify and/or adjust aircraft gas turbine engine components	Level 4	25	Draft - Prep for P Comment
Elective	115356 Repair and maintain electrical system components	Level 4	10	Draft - Prep for P Comment
Elective	115296 Fabricate and/or repair aeronautical components by welding	Level 5	8	Draft - Prep for P Comment
Fundamental	8968 Accommodate audience and context needs in oral communication	Level 3	5	Registered
Fundamental	8969 Interpret and use information from texts	Level 3	5	Registered
Fundamental	8970 Write texts for a range of communicative contexts	Level 3	5	Registered
Fundamental	8973 Use language and communication in occupational learning programmes	Level 3	5	Registered
Fundamental	8974 Engage in sustained oral communication and evaluate spoken texts	Level 4	5	Registered
Fundamental	8975 Read analyse and respond to a variety of texts	Level 4	5	Registered
Fundamental	8976 Write for a wide range of contexts	Level 4	5	Registered
Fundamental	8979 Use language and communication in occupational learning programmes	Level 4	5	Registered
Fundamental	9014 Use mathematics to investigate and monitor the financial aspects of personal, business and national issues	Level 4	6	Registered

Fundamental	9015	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems	Level 4	6	Registered
Fundamental	12417	Measure, estimate & calculate physical quantities & explore, critique & prove geometrical relationships in 2 and 3 dimensional space in the life and workplace of adult with increasing responsibilities	Level 4	4	Reregistered



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

1

Demonstrate knowledge of electrical and electronic components

SAQA US ID	UNIT STANDARD TITLE		
115230	Demonstrate knowledge of electrical and electronic components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION	SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology	Manufacturing and Assembly		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 2	3

Specific Outcomes:**SPECIFIC OUTCOME 1**

Explain terminology used in conjunction with electrical and electronic components.

SPECIFIC OUTCOME 2

Demonstrate knowledge of linear resistance and resistors.

SPECIFIC OUTCOME 3

Demonstrate knowledge of non-linear resistors.

SPECIFIC OUTCOME 4

Demonstrate knowledge of capacitance and capacitors.

SPECIFIC OUTCOME 5

Demonstrate knowledge of the use of capacitors for suppression of radio and television interference.

SPECIFIC OUTCOME 6

Identify fifteen electrical and electronic components.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

2

Demonstrate knowledge of electrical safe working practices

SAQA US ID	UNIT STANDARD TITLE		
115234	Demonstrate knowledge of electrical safe working practices		
SGB NAME		ABET BAND	PROVIDER NAME
SGB Aircraft Maintenance and Overhaul		Undefined	
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 2	2

Specific Outcomes:**SPECIFIC OUTCOME 1**

Demonstrate knowledge of general principles and precautions relating to working safely.

SPECIFIC OUTCOME 2

Demonstrate knowledge of safety clothing and safety equipment as used in the electrical industry.

SPECIFIC OUTCOME 3

Demonstrate knowledge of the safe use of tools and equipment in the electrical industry.

SPECIFIC OUTCOME 4

Demonstrate knowledge of electrical hazards and safety precautions.

SPECIFIC OUTCOME 5

Demonstrate knowledge of procedures in relation to fires in electrical equipment.

SPECIFIC OUTCOME 6

Demonstrate knowledge of reporting of electrical accidents.

SPECIFIC OUTCOME 7

Demonstrate knowledge of the safety tag system.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

3

Demonstrate knowledge of capacitors, semiconductor diodes, and rectification

SAQA US ID	UNIT STANDARD TITLE		
115238	Demonstrate knowledge of capacitors, semiconductor diodes, and rectification		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 2	3

Specific Outcomes:**SPECIFIC OUTCOME 1**

Demonstrate knowledge of capacitors.

SPECIFIC OUTCOME 2

Demonstrate knowledge of semi-conductor diodes and rectification.

SPECIFIC OUTCOME 3

Test semiconductor diodes.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

4

Demonstrate knowledge of key aviation principles and regulations for aircraft maintenance personnel

SAQA US ID	UNIT STANDARD TITLE		
115239	Demonstrate knowledge of key aviation principles and regulations for aircraft maintenance personnel		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION	SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology	Manufacturing and Assembly		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	4

Specific Outcomes:**SPECIFIC OUTCOME 1**

Describe air law for maintenance personnel and functions.

SPECIFIC OUTCOME 2

Describe and explain aircraft principles of flight for maintenance purposes.

SPECIFIC OUTCOME 3

Describe aircraft instrumentation and flight control surfaces for maintenance purposes.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

5

Inspect and maintain aircraft in storage

SAQA US ID	UNIT STANDARD TITLE		
115240	Inspect and maintain aircraft in storage		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	6

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to inspect and maintain the aircraft in storage.

SPECIFIC OUTCOME 2

Inspect and maintain the aircraft.

SPECIFIC OUTCOME 3

Maintain documentation relative to the storage.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

6

Demonstrate knowledge of aircraft power plant maintenance practices

SAQA US ID	UNIT STANDARD TITLE		
115241	Demonstrate knowledge of aircraft power plant maintenance practices		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	6

Specific Outcomes:**SPECIFIC OUTCOME 1**

Demonstrate knowledge of aircraft propeller maintenance practices.

SPECIFIC OUTCOME 2

Demonstrate knowledge of aircraft gas turbine engine maintenance practices.

SPECIFIC OUTCOME 3

Demonstrate knowledge of aircraft auxiliary power unit (APU) maintenance practices.

SPECIFIC OUTCOME 4

Demonstrate knowledge of aircraft reciprocating engine maintenance practices.

SPECIFIC OUTCOME 5

Demonstrate knowledge of aircraft gearbox and transmission maintenance practices.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

7

Draw and interpret electrical diagrams

SAQA US ID	UNIT STANDARD TITLE		
115242	Draw and interpret electrical diagrams		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	3

Specific Outcomes:**SPECIFIC OUTCOME 1**

Demonstrate knowledge of electrical symbols and terminology.

SPECIFIC OUTCOME 2

Design, draw, and explain control circuits.

SPECIFIC OUTCOME 3

Design, draw, and explain lighting circuits.

SPECIFIC OUTCOME 4

Prepare drawings for an electrical installation.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

8

Use electrical test equipment to perform basic electrical tests

SAQA US ID	UNIT STANDARD TITLE		
115243	Use electrical test equipment to perform basic electrical tests		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	4

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare test equipment to perform basic electrical tests.

SPECIFIC OUTCOME 2

Test component in accordance with enterprise procedures using electrical test equipment.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

9

Demonstrate knowledge of single phase transformers

SAQA US ID	UNIT STANDARD TITLE		
115244	Demonstrate knowledge of single phase transformers		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION	SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology	Manufacturing and Assembly		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	3

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge of construction and operating principles of transformers.

SPECIFIC OUTCOME 2

Solve problems involving transformers.

SPECIFIC OUTCOME 3

Determine transformer characteristics by measurement.

SPECIFIC OUTCOME 4

Demonstrate knowledge of transformer applications.

SPECIFIC OUTCOME 5

Demonstrate knowledge of instrument transformers.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

10

Fabricate aircraft electrical looms and harnesses

SAQA US ID	UNIT STANDARD TITLE		
115245	Fabricate aircraft electrical looms and harnesses		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to fabricate aircraft electrical looms and harnesses.

SPECIFIC OUTCOME 2

Fabricate aircraft electrical looms and harnesses.

SPECIFIC OUTCOME 3

Perform routine tests on aircraft electrical looms and harnesses.

SPECIFIC OUTCOME 4

Complete the fabrication process with regard to aircraft electrical looms and harnesses.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

11

Cold work holes in aeronautical aluminium alloys

SAQA US ID	UNIT STANDARD TITLE		
115246	Cold work holes in aeronautical aluminium alloys		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION	SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology	Manufacturing and Assembly		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	4

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to cold work holes.

SPECIFIC OUTCOME 2

Cold work holes.

SPECIFIC OUTCOME 3

Complete the cold working.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

12

Repair, replace, modify and/or adjust aircraft hydraulic system components

SAQA US ID	UNIT STANDARD TITLE		
115247	Repair, replace, modify and/or adjust aircraft hydraulic system components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION	SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology	Manufacturing and Assembly		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	15

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair, replace, modify and/or adjust the hydraulic system component.

SPECIFIC OUTCOME 2

Locate defects in aircraft hydraulic system components.

SPECIFIC OUTCOME 3

Repair, replace, modify and/or adjust the hydraulic system component.

SPECIFIC OUTCOME 4

Test and adjust the hydraulic system component.

SPECIFIC OUTCOME 5

Complete the repair, replacement, modification and/or adjustment task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

13

Use a handheld compass to perform a basic compass swing

SAQA US ID	UNIT STANDARD TITLE		
115248	Use a handheld compass to perform a basic compass swing		
SGB NAME		ABET BAND	PROVIDER NAME
SGB Aircraft Maintenance and Overhaul		Undefined	
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	4

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to swing the compass.

SPECIFIC OUTCOME 2

Swing the compass.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

14

Repair, replace, modify and/or adjust aircraft air conditioning, pressurisation, and ice and rain protection system components

SAQA US ID	UNIT STANDARD TITLE		
115249	Repair, replace, modify and/or adjust aircraft air conditioning, pressurisation, and ice and rain protection system components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	15

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare, repair, replace, modify, adjust mechanical air conditioning and pressurisation components.

SPECIFIC OUTCOME 2

Locate defects in air-conditioning, pressurisation and ice-rain protection systems.

SPECIFIC OUTCOME 3

Repair, replace, modify and/or adjust the component.

SPECIFIC OUTCOME 4

Test and adjust the mechanical air-conditioning, pressurisation or ice-rain protection components.

SPECIFIC OUTCOME 5

Complete the repair, replacement, modification and/or adjustment task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

15

Form aeronautical sheet metal by cutting

SAQA US ID	UNIT STANDARD TITLE		
115250	Form aeronautical sheet metal by cutting		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to form the aeronautical sheet metal by cutting.

SPECIFIC OUTCOME 2

Cut the aeronautical sheet metal.

SPECIFIC OUTCOME 3

Complete the cutting task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

16

Identify faults and replace components in communication devices and systems

SAQA US ID	UNIT STANDARD TITLE		
115251	Identify faults and replace components in communication devices and systems		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to identify faults and replace components in the communication system.

SPECIFIC OUTCOME 2

Identify faults in the communication system.

SPECIFIC OUTCOME 3

Replace components in the communication system.

SPECIFIC OUTCOME 4

Complete the component replacement task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

17

Repair, replace, modify and/or adjust aircraft pneumatic power supply system components

SAQA US ID	UNIT STANDARD TITLE		
115252	Repair, replace, modify and/or adjust aircraft pneumatic power supply system components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	15

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair, replace, modify and/or adjust the pneumatic power supply system component.

SPECIFIC OUTCOME 2

Locate defects in pneumatic power supply systems.

SPECIFIC OUTCOME 3

Repair, replace, modify and/or adjust the pneumatic power supply system component.

SPECIFIC OUTCOME 4

Test and adjust the pneumatic power supply system component.

SPECIFIC OUTCOME 5

Complete the repair, replacement, modification and/or adjustment task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

18

Demonstrate knowledge of aircraft mechanical component repair and overhaul practices

SAQA US ID	UNIT STANDARD TITLE		
115253	Demonstrate knowledge of aircraft mechanical component repair and overhaul practices		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION	SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology	Manufacturing and Assembly		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	8

Specific Outcomes:**SPECIFIC OUTCOME 1**

Demonstrate knowledge of the general principles and precautions relating to working safely.

SPECIFIC OUTCOME 2

Demonstrate knowledge of safety clothing and safety equipment used in the industry.

SPECIFIC OUTCOME 3

Demonstrate knowledge of the safe use of tools and equipment in the industry.

SPECIFIC OUTCOME 4

Demonstrate knowledge of hazards, and safety procedures and precautions.

SPECIFIC OUTCOME 5

Demonstrate knowledge of procedures in relation to fires in workshops or equipment.

SPECIFIC OUTCOME 6

Demonstrate knowledge of reporting of accidents.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

19

Conduct before, between, and after flight inspections

SAQA US ID	UNIT STANDARD TITLE		
115254	Conduct before, between, and after flight inspections		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	6

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to conduct the before, between or after flight inspection.

SPECIFIC OUTCOME 2

Inspect the aircraft.

SPECIFIC OUTCOME 3

Record and report outcomes.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

20

Identify faults and replace components in pulse navigational aid systems

SAQA US ID	UNIT STANDARD TITLE		
115255	Identify faults and replace components in pulse navigational aid systems		
SGB NAME		ABET BAND	PROVIDER NAME
SGB Aircraft Maintenance and Overhaul		Undefined	
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	8

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to identify faults and replace components in the pulse navigational aid system.

SPECIFIC OUTCOME 2

Identify faults in the pulse navigational aid system.

SPECIFIC OUTCOME 3

Replace components in the pulse navigational aid system.

SPECIFIC OUTCOME 4

Complete the component replacement task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

21

Inspect and maintain aircraft airframe systems

SAQA US ID	UNIT STANDARD TITLE		
115256	Inspect and maintain aircraft airframe systems		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	24

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to inspect and maintain the aircraft airframe system.

SPECIFIC OUTCOME 2

Locate defects in the aircraft airframe system.

SPECIFIC OUTCOME 3

Restore the airworthiness of the system.

SPECIFIC OUTCOME 4

Complete the inspection and maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

22

Repair, replace, modify and/or adjust aircraft water and waste system components

SAQA US ID	UNIT STANDARD TITLE		
115257	Repair, replace, modify and/or adjust aircraft water and waste system components		
SGB NAME		ABET BAND	PROVIDER NAME
SGB Aircraft Maintenance and Overhaul		Undefined	
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair, replace, modify and/or adjust the aircraft water and waste system component.

SPECIFIC OUTCOME 2

Locate defects in the aircraft water and waste system.

SPECIFIC OUTCOME 3

Repair, replace, modify and/or adjust the aircraft water and waste system component.

SPECIFIC OUTCOME 4

Test and adjust the aircraft water and waste system component.

SPECIFIC OUTCOME 5

Complete the repair, replacement, modification and/or adjustment task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

23

Inspect and maintain aircraft gas turbine engine power augmentation or restoration systems

SAQA US ID	UNIT STANDARD TITLE		
115258	Inspect and maintain aircraft gas turbine engine power augmentation or restoration systems		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	4

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to inspect and maintain the power augmentation or restoration system.

SPECIFIC OUTCOME 2

Locate defects in the aircraft gas turbine engine power augmentation or restoration systems.

SPECIFIC OUTCOME 3

Restore airworthiness of the aircraft gas turbine engine power augmentation or restoration systems.

SPECIFIC OUTCOME 4

Complete the maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

24

Identify faults and replace components in non-pulse navigational aid systems

SAQA US ID	UNIT STANDARD TITLE		
115259	Identify faults and replace components in non-pulse navigational aid systems		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION	SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology	Manufacturing and Assembly		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	8

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to identify faults and replace components in the non-pulse navigational aid system.

SPECIFIC OUTCOME 2

Identify faults in the non-pulse navigational aid system.

SPECIFIC OUTCOME 3

Replace components in the non-pulse navigational aid system.

SPECIFIC OUTCOME 4

Complete the component replacement task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

25

Repair, replace, modify and/or adjust aircraft gearboxes, transmissions and engine lubrication system components

SAQA US ID	UNIT STANDARD TITLE		
115260	Repair, replace, modify and/or adjust aircraft gearboxes, transmissions and engine lubrication system components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	15

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare, repair, replace, modify or adjust gearboxes, transmissions, lubrication system components.

SPECIFIC OUTCOME 2

Locate defects in gearboxes, transmissions, and lubrication systems.

SPECIFIC OUTCOME 3

Repair, replace, modify and/or adjust gearboxes, transmissions, and lubrication system components.

SPECIFIC OUTCOME 4

Test and adjust the gearboxes, transmissions, and lubrication system components.

SPECIFIC OUTCOME 5

Complete the repair, replacement, modification and/or adjustment task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

26

Inspect and maintain aircraft gas turbine power plants

SAQA US ID	UNIT STANDARD TITLE		
115261	Inspect and maintain aircraft gas turbine power plants		
SGB NAME		ABET BAND	PROVIDER NAME
SGB Aircraft Maintenance and Overhaul		Undefined	
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	19

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to inspect and maintain the power plant.

SPECIFIC OUTCOME 2

Locate defects in the aircraft gas turbine power plant.

SPECIFIC OUTCOME 3

Restore the airworthiness of the system.

SPECIFIC OUTCOME 4

Complete the maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

27

Inspect and maintain aircraft engines

SAQA US ID	UNIT STANDARD TITLE		
115262	Inspect and maintain aircraft engines		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	9

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to inspect and maintain the engine.

SPECIFIC OUTCOME 2

Inspect the aircraft engine.

SPECIFIC OUTCOME 3

Restore the airworthiness of the system.

SPECIFIC OUTCOME 4

Complete the inspection and maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

28

Balance aircraft flight control surfaces

SAQA US ID	UNIT STANDARD TITLE		
115263	Balance aircraft flight control surfaces		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Balance the flight control surfaces.

SPECIFIC OUTCOME 2

Prepare the area for the next task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

29

Repair, replace, modify and/or adjust aircraft landing gear system components

SAQA US ID	UNIT STANDARD TITLE		
115264	Repair, replace, modify and/or adjust aircraft landing gear system components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	8

Specific Outcomes:

SPECIFIC OUTCOME 1

Prepare to repair, replace, modify and/or adjust the landing gear system component.

SPECIFIC OUTCOME 2

Locate defects in landing gear system components.

SPECIFIC OUTCOME 3

Repair, replace, modify and/or adjust the landing gear system component.

SPECIFIC OUTCOME 4

Test and adjust the landing gear system component.

SPECIFIC OUTCOME 5

Complete the repair, replacement, modification and/or adjustment task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

30

Repair, replace, modify and/or adjust gas turbine engine power augmentation or restoration system components

SAQA US ID	UNIT STANDARD TITLE		
115265	Repair, replace, modify and/or adjust gas turbine engine power augmentation or restoration system components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	4

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare, repair, replace, modify or adjust power augmentation / restoration system component.

SPECIFIC OUTCOME 2

Locate defects in power augmentation or restoration systems.

SPECIFIC OUTCOME 3

Repair, replace, modify or adjust the power augmentation or restoration system component.

SPECIFIC OUTCOME 4

Test and adjust the power augmentation or restoration system component.

SPECIFIC OUTCOME 5

Complete the repair, replacement, modification or adjustment task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

31

Repair, replace, modify and/or adjust aircraft propellers

SAQA US ID	UNIT STANDARD TITLE		
115266	Repair, replace, modify and/or adjust aircraft propellers		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	20

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair, replace, modify and/or adjust the propeller.

SPECIFIC OUTCOME 2

Locate defects in aircraft propellers.

SPECIFIC OUTCOME 3

Repair, replace, modify and/or adjust the propeller.

SPECIFIC OUTCOME 4

Test and adjust the propeller.

SPECIFIC OUTCOME 5

Complete the repair, replacement, modification and/or adjustment task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

32

Assemble, track and balance helicopter main and tail rotors

SAQA US ID	UNIT STANDARD TITLE		
115267	Assemble, track and balance helicopter main and tail rotors		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	4

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to assemble, track and balance a rotor.

SPECIFIC OUTCOME 2

Assemble the rotor.

SPECIFIC OUTCOME 3

Align and balance the rotor.

SPECIFIC OUTCOME 4

Complete the assembly, tracking and balancing task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

33

Repair, replace, modify and/or adjust aircraft fuel tanks and distribution system components

SAQA US ID	UNIT STANDARD TITLE		
115268	Repair, replace, modify and/or adjust aircraft fuel tanks and distribution system components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	15

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair or overhaul the fuel distribution system component.

SPECIFIC OUTCOME 2

Locate defects in fuel tanks and distribution systems.

SPECIFIC OUTCOME 3

Repair the fuel tank and/or distribution system.

SPECIFIC OUTCOME 4

Test and adjust the fuel distribution system component.

SPECIFIC OUTCOME 5

Complete the repair task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

34

Inspect and maintain helicopter flight control systems

SAQA US ID	UNIT STANDARD TITLE		
115269	Inspect and maintain helicopter flight control systems		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SG3 AMO	Regular	Level 4	8

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to inspect and/or maintain the flight control system.

SPECIFIC OUTCOME 2

Locate defects in helicopter flight control systems.

SPECIFIC OUTCOME 3

Restore the airworthiness of the system.

SPECIFIC OUTCOME 4

Complete the inspection and/or maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

35

Repair, replace, modify and/or adjust aircraft piston engine fuel system components

SAQA US ID	UNIT STANDARD TITLE		
115270	Repair, replace, modify and/or adjust aircraft piston engine fuel system components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	12

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair, replace, modify and/or adjust piston engine fuel system components.

SPECIFIC OUTCOME 2

Locate defects in the piston engine fuel system.

SPECIFIC OUTCOME 3

Repair, replace, modify and/or adjust the defective piston engine fuel system component.

SPECIFIC OUTCOME 4

Test and adjust the piston engine fuel system component.

SPECIFIC OUTCOME 5

Complete the repair, replacement, modification and/or adjustment task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

36

Inspect and maintain helicopter drive trains

SAQA US ID	UNIT STANDARD TITLE		
115271	Inspect and maintain helicopter drive trains		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	4

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to inspect and/or maintain the drive train.

SPECIFIC OUTCOME 2

Locate defects in the helicopter drive train.

SPECIFIC OUTCOME 3

Restore the airworthiness of the helicopter drive train.

SPECIFIC OUTCOME 4

Complete the inspection and/or maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

37

Service rotary winged aircraft

SAQA US ID	UNIT STANDARD TITLE		
115272	Service rotary winged aircraft		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	4

Specific Outcomes:

SPECIFIC OUTCOME 1

Prepare to service the helicopter.

SPECIFIC OUTCOME 2

Service the helicopter.

SPECIFIC OUTCOME 3

Complete the servicing task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

38

Repair, replace, modify and/or adjust aircraft piston engines

SAQA US ID	UNIT STANDARD TITLE		
115273	Repair, replace, modify and/or adjust aircraft piston engines		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION	SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology	Manufacturing and Assembly		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	12

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair, replace, modify and/or adjust the piston engine.

SPECIFIC OUTCOME 2

Locate defects in aircraft piston engines.

SPECIFIC OUTCOME 3

Repair, replace, modify and/or adjust the defective engine or component.

SPECIFIC OUTCOME 4

Test and adjust the engine or component.

SPECIFIC OUTCOME 5

Complete the repair, replacement, modification and/or adjustment task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

39

Assemble aeronautical metal components and/or composites by bonding

SAQA US ID	UNIT STANDARD TITLE		
115274	Assemble aeronautical metal components and/or composites by bonding		
SGB NAME		ABET BAND	PROVIDER NAME
SGB Aircraft Maintenance and Overhaul		Undefined	
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to assemble the aeronautical metal component.

SPECIFIC OUTCOME 2

Assemble the aeronautical metal component.

SPECIFIC OUTCOME 3

Complete the assembly task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

40

Inspect and maintain aircraft piston engines and transmissions

SAQA US ID	UNIT STANDARD TITLE		
115275	Inspect and maintain aircraft piston engines and transmissions		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION	SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology	Manufacturing and Assembly		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	20

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to inspect and maintain the engine or transmission.

SPECIFIC OUTCOME 2

Locate defects in engines and transmissions.

SPECIFIC OUTCOME 3

Restore the airworthiness of the system.

SPECIFIC OUTCOME 4

Complete the maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

41

Inspect and maintain helicopter rescue winches

SAQA US ID	UNIT STANDARD TITLE		
115276	Inspect and maintain helicopter rescue winches		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	8

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to inspect and/or maintain the helicopter rescue winch system.

SPECIFIC OUTCOME 2

Locate defects in helicopter rescue winch systems.

SPECIFIC OUTCOME 3

Restore the airworthiness of the helicopter rescue winch system.

SPECIFIC OUTCOME 4

Complete the inspection and/or maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

42

Inspect and maintain aircraft gas turbine auxiliary power units

SAQA US ID	UNIT STANDARD TITLE		
115277	Inspect and maintain aircraft gas turbine auxiliary power units		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	15

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to inspect and maintain the gas turbine auxiliary power unit.

SPECIFIC OUTCOME 2

Locate defects in gas turbine auxiliary power units.

SPECIFIC OUTCOME 3

Restore the airworthiness of the aircraft gas turbine power unit.

SPECIFIC OUTCOME 4

Complete the inspection and maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

43

Test aircraft engines on a test bed

SAQA US ID	UNIT STANDARD TITLE		
115278	Test aircraft engines on a test bed		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	6

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare the engine for testing.

SPECIFIC OUTCOME 2

Test the engine.

SPECIFIC OUTCOME 3

Complete the testing task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

44

Repair and maintain electrical instrument components

SAQA US ID	UNIT STANDARD TITLE		
115279	Repair and maintain electrical instrument components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	25

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair and maintain the electrical instrument.

SPECIFIC OUTCOME 2

Locate defects in electrical instrument components.

SPECIFIC OUTCOME 3

Restore the airworthiness of the electrical instrument components.

SPECIFIC OUTCOME 4

Complete the repair and maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

45

Repair, replace and/or adjust helicopter belt-drive components and metal rotor blades

SAQA US ID	UNIT STANDARD TITLE		
115280	Repair, replace and/or adjust helicopter belt-drive components and metal rotor blades		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	4

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair, replace and/or adjust helicopter belt-drive components and metal rotor blades.

SPECIFIC OUTCOME 2

Locate defects in helicopter belt-drive components and metal rotor blades.

SPECIFIC OUTCOME 3

Repair, replace and/or adjust the helicopter belt-drive components and metal rotor blades component.

SPECIFIC OUTCOME 4

Test and adjust helicopter belt-drive components and metal rotor blades.

SPECIFIC OUTCOME 5

Complete the repair, replacement and/or adjustment task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

46

Repair and maintain communication devices and systems

SAQA US ID	UNIT STANDARD TITLE		
115281	Repair and maintain communication devices and systems		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	15

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair and maintain the aircraft communication device or system.

SPECIFIC OUTCOME 2

Locate defects in the aircraft communication device or system.

SPECIFIC OUTCOME 3

Identify the business of the device or system.

SPECIFIC OUTCOME 4

Complete the repair and maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

47

Repair and maintain mechanical instrument components

SAQA US ID	UNIT STANDARD TITLE		
115282	Repair and maintain mechanical instrument components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	10

Specific Outcomes:

SPECIFIC OUTCOME 1

Prepare to repair and maintain the mechanical instrument.

SPECIFIC OUTCOME 2

Locate defects in mechanical instruments.

SPECIFIC OUTCOME 3

Restore the airworthiness of the mechanical instruments.

SPECIFIC OUTCOME 4

Complete the repair and maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

48

Repair, replace and/or adjust helicopter drive shaft assemblies

SAQA US ID	UNIT STANDARD TITLE		
115283	Repair, replace and/or adjust helicopter drive shaft assemblies		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	8

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair, replace and/or adjust the drive shaft assembly.

SPECIFIC OUTCOME 2

Locate defects in helicopter drive shaft assemblies.

SPECIFIC OUTCOME 3

Repair, replace and/or adjust the helicopter drive shaft assembly unit.

SPECIFIC OUTCOME 4

Test and adjust the helicopter drive shaft assembly unit.

SPECIFIC OUTCOME 5

Complete the repair, replacement and/or adjustment task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

49

Demonstrate understanding of antenna systems

SAQA US ID	UNIT STANDARD TITLE		
115284	Demonstrate understanding of antenna systems		
SGB NAME		ABET BAND	PROVIDER NAME
SGB Aircraft Maintenance and Overhaul		Undefined	
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Demonstrate understanding of the working of the antenna system.

SPECIFIC OUTCOME 2

Demonstrate understanding of the mounting of the antenna system.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

50

Demonstrate understanding of component disassembly, inspection, repair and assembly techniques

SAQA US ID	UNIT STANDARD TITLE		
115285	Demonstrate understanding of component disassembly, inspection, repair and assembly techniques		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	4

Specific Outcomes:**SPECIFIC OUTCOME 1**

Demonstrate understanding of component disassembly techniques.

SPECIFIC OUTCOME 2

Demonstrate understanding of component inspection techniques.

SPECIFIC OUTCOME 3

Demonstrate understanding of component repair techniques.

SPECIFIC OUTCOME 4

Demonstrate understanding of component assembly techniques.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

51

Repair and maintain pulse navigational aid systems

SAQA US ID	UNIT STANDARD TITLE		
115286	Repair and maintain pulse navigational aid systems		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair and maintain the pulse navigational aid system.

SPECIFIC OUTCOME 2

Locate defects in the pulse navigational aid system.

SPECIFIC OUTCOME 3

Restore the airworthiness of the pulse navigational aid system.

SPECIFIC OUTCOME 4

Complete the repair and maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

52

Repair and maintain instrumentation components

SAQA US ID	UNIT STANDARD TITLE		
115287	Repair and maintain instrumentation components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION	SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology	Manufacturing and Assembly		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	25

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair and maintain the instrumentation system.

SPECIFIC OUTCOME 2

Locate defects in instrumentation systems.

SPECIFIC OUTCOME 3

Restore the airworthiness of the instrumentation systems.

SPECIFIC OUTCOME 4

Complete the repair and maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

53

Repair and maintain non-pulse navigational aid systems

SAQA US ID	UNIT STANDARD TITLE		
115288	Repair and maintain non-pulse navigational aid systems		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	20

Specific Outcomes:

SPECIFIC OUTCOME 1

Prepare to repair and maintain the non-pulse navigational aid system.

SPECIFIC OUTCOME 2

Locate defects in the non-pulse navigational aid system.

SPECIFIC OUTCOME 3

Restore the airworthiness of the system.

SPECIFIC OUTCOME 4

Complete the repair and maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

54

Assemble aircraft metal components using fasteners

SAQA US ID	UNIT STANDARD TITLE		
115289	Assemble aircraft metal components using fasteners		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to assemble the component.

SPECIFIC OUTCOME 2

Assemble the component.

SPECIFIC OUTCOME 3

Complete the assembly task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

55

Form aeronautical sheet metal by folding

SAQA US ID	UNIT STANDARD TITLE		
115290	Form aeronautical sheet metal by folding		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION	SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology	Manufacturing and Assembly		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	3

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to form aeronautical sheet metal by folding.

SPECIFIC OUTCOME 2

Fold aeronautical sheet metal.

SPECIFIC OUTCOME 3

Complete the folding task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

56

Repair and maintain aircraft optical system components

SAQA US ID	UNIT STANDARD TITLE		
115291	Repair and maintain aircraft optical system components		
SGB NAME		ABET BAND	PROVIDER NAME
SGB Aircraft Maintenance and Overhaul		Undefined	
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	20

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair and maintain the aircraft optical system component.

SPECIFIC OUTCOME 2

Locate defects in aircraft optical system components.

SPECIFIC OUTCOME 3

Restore the airworthiness of the aircraft optical system component.

SPECIFIC OUTCOME 4

Complete the repair and maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

57

Repair and/or modify aircraft metal structures

SAQA US ID	UNIT STANDARD TITLE		
115292	Repair and/or modify aircraft metal structures		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	15

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair or modify the aircraft metal structure.

SPECIFIC OUTCOME 2

Repair or modify aircraft structure.

SPECIFIC OUTCOME 3

Complete the repair or modification task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

58

Form aeronautical sheet metal by rubber pressing

SAQA US ID	UNIT STANDARD TITLE		
115293	Form aeronautical sheet metal by rubber pressing		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	15

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to form aeronautical sheet metal by rubber pressing.

SPECIFIC OUTCOME 2

Form the aeronautical sheet metal by rubber pressing.

SPECIFIC OUTCOME 3

Complete the rubber pressing task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

59

Visually inspect aircraft structures

SAQA US ID	UNIT STANDARD TITLE		
115294	Visually inspect aircraft structures		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	4

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to inspect the structure.

SPECIFIC OUTCOME 2

Inspect the structure.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

60

Identify and prevent corrosion in the aeronautical industry

SAQA US ID	UNIT STANDARD TITLE		
115295	Identify and prevent corrosion in the aeronautical industry		
SGB NAME		ABET BAND	PROVIDER NAME
SGB Aircraft Maintenance and Overhaul		Undefined	
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	3

Specific Outcomes:**SPECIFIC OUTCOME 1**

Demonstrate knowledge of corrosion.

SPECIFIC OUTCOME 2

Demonstrate knowledge of corrosion prevention procedures for aircraft structures.

SPECIFIC OUTCOME 3

Carry out corrosion prevention procedures.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

61

Fabricate and/or repair aeronautical components by welding

SAQA US ID	UNIT STANDARD TITLE		
115296	Fabricate and/or repair aeronautical components by welding		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 5	8

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to weld aeronautical materials.

SPECIFIC OUTCOME 2

Weld aeronautical materials.

SPECIFIC OUTCOME 3

Rectify non-conformities.

SPECIFIC OUTCOME 4

Complete the welding task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

62

Balance aeronautical rotating assemblies

SAQA US ID	UNIT STANDARD TITLE		
115332	Balance aeronautical rotating assemblies		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	4

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare the item for balancing.

SPECIFIC OUTCOME 2

Balance the component.

SPECIFIC OUTCOME 3

Complete the balancing task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

63

Repair, replace and/or adjust helicopter cargo suspension hooks and rescue hoists

SAQA US ID	UNIT STANDARD TITLE		
115333	Repair, replace and/or adjust helicopter cargo suspension hooks and rescue hoists		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	4

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair, replace and/or adjust helicopter cargo suspension hooks and rescue hoists.

SPECIFIC OUTCOME 2

Locate defects in helicopter cargo suspension hooks and rescue hoists.

SPECIFIC OUTCOME 3

Repair, replace and/or adjust the cargo suspension hooks and rescue hoists.

SPECIFIC OUTCOME 4

Test and adjust the cargo suspension hook and rescue hoist.

SPECIFIC OUTCOME 5

Complete the repair, replacement and/or adjustment task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

64

Assemble, inspect and maintain aircraft propellers

SAQA US ID	UNIT STANDARD TITLE		
115335	Assemble, inspect and maintain aircraft propellers		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to assemble, inspect and maintain the propeller.

SPECIFIC OUTCOME 2

Assemble the propeller.

SPECIFIC OUTCOME 3

Locate defects in propellers.

SPECIFIC OUTCOME 4

Restore the airworthiness of the propeller or propeller system.

SPECIFIC OUTCOME 5

Complete the maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

65

Repair, replace, modify and/or adjust aircraft oxygen system components

SAQA US ID	UNIT STANDARD TITLE		
115336	Repair, replace, modify and/or adjust aircraft oxygen system components		
SGB NAME		ABET BAND	PROVIDER NAME
SGB Aircraft Maintenance and Overhaul		Undefined	
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	25

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair, replace, modify and/or adjust the aircraft oxygen system component.

SPECIFIC OUTCOME 2

Locate defects in oxygen systems.

SPECIFIC OUTCOME 3

Repair, replace, modify and/or adjust the aircraft oxygen system component.

SPECIFIC OUTCOME 4

Test and adjust the aircraft oxygen system component.

SPECIFIC OUTCOME 5

Complete the repair, replacement, modification and/or adjustment task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

66

Repair, replace, modify and/or adjust aircraft gas turbine engine fuel control units and system components

SAQA US ID	UNIT STANDARD TITLE		
115338	Repair, replace, modify and/or adjust aircraft gas turbine engine fuel control units and system components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	12

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair, replace, modify and/or adjust the fuel control unit or system components.

SPECIFIC OUTCOME 2

Locate defects in aircraft gas turbine engine fuel control units and system components.

SPECIFIC OUTCOME 3

Repair, replace, modify or adjust the gas turbine engine fuel control units and system components.

SPECIFIC OUTCOME 4

Test and adjust the gas turbine engine fuel control units and system components.

SPECIFIC OUTCOME 5

Complete the repair, replacement, modification and/or adjustment task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

67

Install aircraft electrical wiring

SAQA US ID	UNIT STANDARD TITLE		
115341	Install aircraft electrical wiring		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to install aircraft electrical wiring.

SPECIFIC OUTCOME 2

Install aircraft electrical wiring.

SPECIFIC OUTCOME 3

Complete the installation task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

68

Repair and maintain AC and DC motors

SAQA US ID	UNIT STANDARD TITLE		
115342	Repair and maintain AC and DC motors		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair and maintain the AC or DC motor.

SPECIFIC OUTCOME 2

Locate defects.

SPECIFIC OUTCOME 3

Restore the airworthiness of the system.

SPECIFIC OUTCOME 4

Complete the repair and maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

69

Remove and install major aircraft electrical components

SAQA US ID	UNIT STANDARD TITLE		
115343	Remove and install major aircraft electrical components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	15

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to remove aircraft electrical components.

SPECIFIC OUTCOME 2

Remove aircraft electrical components.

SPECIFIC OUTCOME 3

Install aircraft electrical components.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

70

Inspect, test and troubleshoot aircraft electrical systems and components

SAQA US ID	UNIT STANDARD TITLE		
115344	Inspect, test and troubleshoot aircraft electrical systems and components		
SGB NAME		ABET BAND	PROVIDER NAME
SGB Aircraft Maintenance and Overhaul		Undefined	
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	20

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare for troubleshooting.

SPECIFIC OUTCOME 2

Test and/or adjust electrical systems.

SPECIFIC OUTCOME 3

Troubleshoot electrical systems.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

71

Repair or overhaul aircraft electrical/electro-mechanical components

SAQA US ID	UNIT STANDARD TITLE		
115346	Repair or overhaul aircraft electrical/electro-mechanical components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION	SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology	Manufacturing and Assembly		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	15

Specific Outcomes:**SPECIFIC OUTCOME 1**

Determine requirements.

SPECIFIC OUTCOME 2

Troubleshoot electrical/electro-mechanical components.

SPECIFIC OUTCOME 3

Dismantle and inspect electrical/electro-mechanical components.

SPECIFIC OUTCOME 4

Repair and/or modify electrical/electro-mechanical components.

SPECIFIC OUTCOME 5

Assemble, test and adjust electrical/electro mechanical components.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

72

Remove and install miscellaneous aircraft electrical hardware and/or components

SAQA US ID	UNIT STANDARD TITLE		
115347	Remove and install miscellaneous aircraft electrical hardware and/or components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Remove aircraft electrical hardware.

SPECIFIC OUTCOME 2

Install aircraft electrical hardware.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

73

Repair and maintain distribution system components

SAQA US ID	UNIT STANDARD TITLE		
115349	Repair and maintain distribution system components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair and maintain the distribution system.

SPECIFIC OUTCOME 2

Locate defects.

SPECIFIC OUTCOME 3

Restore the airworthiness of the system.

SPECIFIC OUTCOME 4

Complete the repair and maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

74

Manufacture and/or repair aircraft electrical components or parts

SAQA US ID	UNIT STANDARD TITLE		
115350	Manufacture and/or repair aircraft electrical components or parts		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION	SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology	Manufacturing and Assembly		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Interpret specifications and organise materials.

SPECIFIC OUTCOME 2

Manufacture and/or repair electrical components or parts.

SPECIFIC OUTCOME 3

Test manufactured and/or repaired components or parts.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

75

Repair and maintain protection and control systems

SAQA US ID	UNIT STANDARD TITLE		
115351	Repair and maintain protection and control systems		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair and maintain the protection or control system.

SPECIFIC OUTCOME 2

Locate defects.

SPECIFIC OUTCOME 3

Restore the airworthiness of the system.

SPECIFIC OUTCOME 4

Complete the repair and maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

76

Repair, replace, modify and/or adjust aircraft gas turbine engine components

SAQA US ID	UNIT STANDARD TITLE		
115355	Repair, replace, modify and/or adjust aircraft gas turbine engine components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	25

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair, replace, modify and/or adjust the gas turbine engine component.

SPECIFIC OUTCOME 2

Locate defects in gas turbine engine components.

SPECIFIC OUTCOME 3

Repair, replace, modify and/or adjust the gas turbine engine component.

SPECIFIC OUTCOME 4

Test and adjust the gas turbine engine component.

SPECIFIC OUTCOME 5

Complete the repair, replacement, modification and/or adjustment task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

77

Repair and maintain electrical system components

SAQA US ID	UNIT STANDARD TITLE		
115356	Repair and maintain electrical system components		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 4	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Prepare to repair and maintain the electrical system.

SPECIFIC OUTCOME 2

Locate defects.

SPECIFIC OUTCOME 3

Restore the airworthiness of the system.

SPECIFIC OUTCOME 4

Complete the repair and maintenance task.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

78

Apply avionic repair skills

SAQA US ID	UNIT STANDARD TITLE		
115357	Apply avionic repair skills		
SGB NAME	ABET BAND	PROVIDER NAME	
SGB Aircraft Maintenance and Overhaul	Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Manufacturing and Assembly	
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-MNA-0-SGB AMO	Regular	Level 3	10

Specific Outcomes:**SPECIFIC OUTCOME 1**

Test semiconductor devices.

SPECIFIC OUTCOME 2

Repair avionic printed wiring assemblies.

SPECIFIC OUTCOME 3

Test avionic equipment.