

**STATEMENT OF WORK EXPERIENCE/LOGBOOK**

<b>Instructional Programme Code:</b>	50908401 National N Diploma: Engineering Studies: Mechanical Engineering
<b>SAQA Qualification ID:</b>	90674: National N Diploma, Engineering Studies: Mechanical Engineering NQF Level 6, 360 credits
<b>SAQA Learning Programme ID:</b>	67043 National N Diploma: Engineering Studies: Mechanical Engineering, NQF Level 6, 360 credits

<b>Learner Details</b>	
<b>Name &amp; Surname:</b>	
<b>ID Number:</b>	

<b>Employer Details</b>	
<b>Company Name:</b>	
<b>Address:</b>	
<b>Supervisor Name:</b>	
<b>Work Telephone:</b>	
<b>E-Mail:</b>	

<b>Employer Details</b>	
<b>Company Name:</b>	
<b>Address:</b>	
<b>Supervisor Name:</b>	
<b>Work Telephone:</b>	
<b>E-Mail:</b>	

## Mechanical engineering

Mechanical engineering competencies include the design, assembly, manufacture, installation, modification, testing, faultfinding, commissioning, maintenance and service of all mechanical equipment, machinery, fluid power systems, stationary and mobile equipment, instruments, refrigeration, and the use of computer-controlled machine tools.

**Candidate completed a relevant Trade Test or worked in a technical environment relevant to the specialised theoretical subjects:**

OFO-CODE	TRADE	[v]	COMMENTS
643202	Vehicle Painter		
651101	Moulder		
651202	Welder		
651203	Fitter-Welder		
651301	Sheet Metal Worker		
651302	Boilermaker		
651401	Metal Fabricator		
651404	Structural Plater		
651501	Rigger		
652101	Blacksmith		
652201	Toolmaker		
652202	Gunsmith		
652203	Locksmith		
652204	Patternmaker		
652206	Die Sinker		
652301	Metal Machinist		
652302	Fitter and Turner		
652403	Saw Maker and Repairer		
652101	Automotive Motor Mechanic		
653103	Motor Cycle Mechanic		
653109	Automotive Engine Mechanic		
653201	Aircraft Maintenance Mechanic		
653202	Aircraft Structures Worker		
653301	Industrial Machinery Mechanic		
653303	Mechanical Fitter		
653304	Diesel Fitter		
653305	Small Engine Mechanic		
653306	Diesel Mechanic		
653307	Heavy Equipment Mechanic		
653308	Tractor Mechanic		
653309	Forklift Mechanic		
661103	Scale Fitter		
671202	Millwright		
671203	Mechanics Technician		
671204	Lift Mechanic		
671205	Weapon Systems Mechanic		
684904	Panel beater		
684907	Boat Builder or Repairer		

684908	Shipwright		
684910	Ammunition Fitter		
684913	Melter		
734212	Railway Track Master		

The competencies covered may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

	Scope Work Experience	Date	Signature
WA011	Perform operational maintenance of machines/equipment		
WA012	Perform precision shaping/planing/slotting operations		
WA013	Perform machine setting (routine)		
WA014	Perform general machining		
WA015	Perform lathe operations		
WA016	Perform milling operations		
WA017	Perform grinding operations		
WA018	Perform precision jig boring operations		
WA019	Perform tool and cutter grinding operations		

WA0110	Perform machining operations using horizontal and/or vertical boring machines		
WA0111	Perform electro-discharge (EDM) machining operations		
WA0112	Set computer controlled machines/processes		
WA0113	Program NC/CNC machining centre		
WA0114	Program multiple spindle and/or multiple axis NC/CNC machining centre		
WA0115	Program CNC wire cut machines		
WA0116	Program and set up CNC manufacturing cell		
WA0117	Operate and monitor machine/process		
WA0118	Perform metal spinning lathe operations (basic)		
WA0119	Maintain and overhaul mechanical equipment		
WA0120	Perform fault diagnosis, installation and removal of bearings		
WA0121	Repair and fit engineering components		
WA0122	Maintain and repair mechanical drives and mechanical transmission assemblies		
WA0123	Balance equipment		

WA0124	Perform levelling and alignment of machines and engineering components		
WA0125	Perform equipment condition monitoring and recording		
WA0126	Shut down and isolate machines/equipment		
WA0127	Perform installation and removal of mechanical seals		
WA0128	Perform gland packing		
WA0129	Manufacture press tools and gauges		
WA0130	Maintain tools and dies		
WA0131	Maintain pneumatic system components		
WA0132	Maintain pneumatic systems		
WA0133	Maintain hydraulic system components		
WA0134	Maintain hydraulic systems		
WA0135	Maintain fluid power controls		
WA0136	Maintain engine cooling systems		
WA0137	Service combustion engines		
WA0138	Test compression ignition fuel systems		

WA0139	Overhaul engine fuel system components		
WA0140	Maintain engine lubrication systems		
WA0141	Tune diesel engines		
WA0142	Diagnose and rectify low voltage electrical systems		
WA0143	Diagnose and rectify low voltage starting systems		
WA0144	Maintain induction/exhaust systems		
WA0145	Perform engine bottom-end overhaul		
WA0146	Perform engine top-end overhaul		
WA0147	Diagnose and rectify braking systems		
WA0148	Diagnose and rectify low voltage charging systems		
WA0149	Maintain wheels and tyres		
WA0150	Diagnose and rectify track type undercarriage		
WA0151	Maintain suspension systems		
WA0152	Maintain steering systems		

WA0153	Diagnose and rectify manual transmissions		
WA0154	Diagnose and rectify automatic transmissions		
WA0155	Diagnose and rectify drive line and final drives		
WA0156	Dismantle, replace and assemble engineering components		
WA0157	Tune control loops - multi controller or multi element systems		
WA0158	Connect/disconnect fluid conveying system components		
WA0159	Manufacture fluid conveying conductor assemblies		
WA0160	Prepare to perform work associated with fuel system installation and servicing		
	<b>Supporting Evidence Look for evidence that confirms skills in:</b>	<b>Date</b>	<b>Signature</b>
SE0101	Reading, interpreting and following information on written job sheets, instructions, charts, lists, drawings and other applicable reference documents and drawings		
SE0102	Obtaining instructions for tasks from correct source of information (job card, supervisor, work colleagues and others)		
SE0103	Checking and clarifying task related information		
SE0104	Planning and prepare plans for tasks and sequencing operations		
SE0105	Performing numerical operations, geometry and calculations/formulae within the scope of the work activities		

SE0106	Setting up work using tools, techniques and equipment		
SE0107	Checking for conformance to specifications		
SE0108	Applying safe work practices and procedures against established control measures		
SE0109	Identifying customers' requirements with respect to the operation or quality of the product or service		