

## SKILLS PROGRAMME DOCUMENT



Skills Programme Title		<b>Tower Crane-Top Slewing C41 Operator</b>			
NQF Level	3	Credits	40	Duration in days	50 days
Skills Programme ID		SP-211036			
Skills Programme Status	APPROVED			Start Date	End Date
				25/10/2021	25/10/2026
Last date for enrolment	25/10/2027	Last date for achievement	25/10/2030		

## SKILLS PROGRAMME DETAILS

1.	<b>Title</b>	Tower Crane-Top Slewing C41 Operator
2.	<b>Sub Title</b>	734301: Crane or Hoist Operator
3.	<b>NQF Level</b>	3
4.	<b>Duration</b>	50 days
5.	<b>Credits</b>	40 credits
6.	<b>Quality Assuring Body</b>	Quality Council for Trades and Occupations (QCTO)
7.	<b>Skills Programme Rationale</b>	<p>The need for the development of this skills programme was identified in 2013 to replace the unit standard-based National Certificate: Construction: Crane Operations, NQF Level 02, 121 Credits (SAQA Id: 64829). This need was aligned in 2016 to meet the Driven Machinery Regulations (DRM) No. R. 540, 2015, dated 24 June 2015; and Government Notice, National Code of Practice for the Training Providers of Lifting Machine Operators No 539, 2015, dated 24 June 2015. The latter includes a list, known as the NCoP for training providers, of specific machines that falls within the scope. The Tower Crane-Top Slewing C41 Operator is one of those listed in the NCoP.</p> <p>The Department of Employment and Labour requires that, in terms of the legislation, Crane Operators for machines listed in the NCoP, be licenced against an NQF aligned and quality assured qualification. During the development phases it became clear to industry and the Department of Employment and Labour that a single qualification could not address the needs for each machine listed in the NCoP. This resulted in the need for the development of several dedicated realigned Skills Programmes making provision for the training and associated licencing and re-licencing requirements for unique cranes. Crane Operators are employed in every single economic sector of the country including transport, mining, manufacturing, production, and construction. Crane operators are therefore integral for the success of every industry in South Africa and therefore contributes to the growth of the South African economy. Career opportunities also exist in all sectors and in every province in the country thereby benefiting society as a whole.</p> <p>Typical learners likely to be attracted to this Skills Programme are school leavers with an interest in the functioning and safety requirements associated with a Tower Crane-Top Slewing C41 Operator.</p> <p>Learners who have completed this skills programme will be tested; and if found competent; will be issued with a license by the Department of Employment and Labour to operate the Tower Crane-Top Slewing C41 in any sector of his/her choice in South Africa.</p> <p>The Skills Programme: Tower Crane-Top Slewing C41 Operator will contribute to the full development of the learner by providing recognition, further mobility, and transportability. This Skills Programme forms part of a suite of related Skills programmes that encapsulates common competencies in the knowledge component and allows for the acquisition of specialised competencies in the application component.</p>

		Learners who have completed the Skills Programme Tower Crane-Top Slewing C41 Operator will be able to enrol for any of the related Crane Operator Skills Programmes and will be granted recognition for the modules already completed (CAT) to progress further in their career path.	
8.	<b>Related registered qualification/s</b>	National Certificate: Lifting Machine Operations	
9.	<b>Purpose</b>	<p>The purpose of this skills programme is to prepare a learner to operate as a Tower Crane-Top Slewing C41 Operator.</p> <p>A Tower Crane-Top Slewing C41 Operator operate a Tower Crane-Top Slewing C41 that is designed and constructed for the purpose of raising or lowering a load or moving it in suspension.</p> <p>A qualified learner will be able to:</p> <ul style="list-style-type: none"> <li>• Conduct Tower Crane-Top Slewing C41 pre-start, start up and operational checks</li> <li>• Conduct mobilisation and demobilisation of a Tower Crane-Top Slewing C41</li> <li>• Operate a Tower Crane-Top Slewing C41</li> <li>• Communicate effectively in various industrial environment</li> </ul> <p>Identify and have basic operational knowledge of other crane types</p>	
10.	<b>Content</b>	<p><b><u>Knowledge component</u></b></p> <ul style="list-style-type: none"> <li>• 900047-000-00-KM-01, Safety, Health, Environmental, Risk and Quality (Legislation and QMS), NQF Level 3, Credits 2</li> <li>• 900047-000-00-KM-02, Basic understanding of Equipment, Materials, Maintenance and Techniques, NQF Level 3, Credits 4</li> <li>• 900047-000-00-KM-03, Basic Rigging, Slings and freight handling, NQF Level 3, Credits 1</li> <li>• 900047-000-00-KM-04, Principles of Communication, NQF Level 3, Credits 1</li> <li>• 900047-000-00-KM-05, Principles of Lifting Machine operations, NQF Level 3, Credits 4</li> </ul>	<p><b><u>Application component</u></b></p> <ul style="list-style-type: none"> <li>• 900073-000-00-PM-01, Conduct pre-start, start-up and operational checks of a Tower Crane-Top Slewing C41, NQF Level 3, Credits 2</li> <li>• 900073-000-00-PM-02, Conduct set-up checks of a Tower Crane-Top Slewing C41, NQF Level 3, Credits 2</li> <li>• 900073-000-00-PM-03, Plan and prepare for lifting with a Tower Crane-Top Slewing C41, NQF Level 3, Credits 2</li> <li>• 900073-000-00-PM-04, Operate Tower Crane-Top Slewing C41 by lifting, moving and positioning loads, NQF Level 3, Credits 20</li> </ul>

			<ul style="list-style-type: none"> <li>900073-000-00-PM-05, Secure, refuelling or energising and shutdown a Tower Crane-Top Slewing C41, NQF Level 3, Credits 2</li> </ul>
		Total Credits: 12	Total Credits: 28
11.	<b>Minimum entry requirements</b>	NQF Level 2 with Mathematical Literacy	
12.	<b>Exit Level Outcomes (ELO) and Associated Assessment Criteria (AAC)</b>	<p>ELO 1: Conduct start up, pre-start and operational checks for a Tower Crane-Top Slewing C41</p> <p>ELO 2: Conduct mobilisation and demobilisation of a Tower Crane-Top Slewing C41</p> <p>ELO 3: Conduct attaching, picking up and lowering operations with a Tower Crane-Top Slewing C41</p>	
13.	<b>Continuous Assessment &amp; Final Supervised Assessment (FISA)</b>	<p><b>Continuous Assessment</b> The SDP must ensure that all learners are enrolled with the QCTO at the start of training (within 5 days) in the format required by the QCTO.</p> <p>Continuous assessment is set by the SDP in accordance with the outcomes provided.</p> <p>This may consist of a variety of methods, e.g. practical or written assessments, assignments, projects, demonstrations, presentations or any other form of assessment to assist the learner in the learning process.</p> <p>During training, it is mandatory for formal summative assessments to take place at the end of each module/topic. These results must be formally recorded, and be available for monitoring and/or evaluation by the QCTO.</p> <p><b>Final Integrated Supervised Assessment (FISA)</b> All learners gain entrance to the Final Integrated Supervised Assessment by successfully completing all formal summative assessments conducted by the SDP.</p> <p>Format of FISA: A <i>practical and verbal</i> assessment integrating the relevant Exit Level outcomes, with simultaneous verbal assessment of embedded knowledge by the assessor before, during or after the FISA.</p> <p>All FISAs must be supervised, and virtual FISAs must be recorded throughout the assessment.</p> <p>All Exit Level Outcomes must be covered in the FISA. In the FISA, the learner must demonstrate applied knowledge and skills to prove that the competencies of the Skills Programme have been achieved.</p> <p>The FISA may not contain any assessments used in the "Continuous Assessment" process (thus no re-assessment).</p> <p>Special considerations should be made for candidates with special learning needs.</p> <p><b>Standards for Final Integrated Supervised Assessment (FISA):</b></p>	

The learner should be provided with a brief/job card/task to demonstrate what the learner should show, know or produce in a product, relevant to the Exit Level Outcomes and the purpose of the Skills Programme. This is the section where the learner must show applied competency (what the learner must be able to do, and to what expected standard)

The FISA INSTRUMENT (Written case study, scenario or brief/task [similar to a job card]) must be developed and moderated by the SDP and conducted in a supervised environment. It is assessed by means of a RUBRIC developed by the SDP for this purpose:

**Competencies to be assessed during FISA**

- The practical task(s) provided must ensure that a learner will be able to:
  - Operate a Tower Crane-Top Slewing C41 that is designed and constructed for the purpose of raising or lowering a load or moving it in suspension in accordance with NCoP Code C42

*A rubric/competency test tool must be designed to assess learners' required competencies according to the set standards as stipulated in the evidence below:*

**Performance Required from each Learner**

The practical task(s) provided shall require the learner to show that he/she can:

- Conduct Tower Crane-Top Slewing C41 pre-start, start up and operational checks
- Plan Conduct mobilisation and demobilisation of a Tower Crane-Top Slewing C41 according to processes and procedures
- Operate a Tower Crane-Top Slewing C41 by lifting, moving and positioning loads in accordance with NCoP CodeC 41

In the written component, learners must be given real life scenarios in which they must demonstrate that they have knowledge in order to respond to challenges/issues/problems in given scenarios, in relation to the following:

- Health and safety
- Equipment, materials and maintenance
- Communication

The learner must achieve a minimum of 70% to be found competent for the written component.

The maximum allocated time for the completion of the FISA is 8 hours including both practical and written activities

Whilst conducting the above practical, strategic, well-timed questions should be asked of the learner to assess embedded knowledge gained during the skills programme, as well as critical thinking and problem-solving skills: for e.g.

- "Why.....?"
- "What would happen if ...?"
- "When ..... is done, what would the result be?"
- "How would you deal with .....?"
- Etc.

		<p>The marking rubric/compliance checklist used to assess these competencies must include a section for the assessor/facilitator used in this session to make a note of competencies shown, (or not shown), as well as the questions that were asked, and a summary of the learner's answers, and state whether these are of the acceptable standard or not.</p> <p>The marking rubric/compliance checklist compiled should contain specific areas marked with an asterisk (*) as compulsory sections in order for the learner to be declared C (Competent). Compulsory sections are when the safety of the candidate or others would be affected if incorrectly completed.</p> <p>Learners who complete this skills programme will accumulate credits towards the relevant full or part qualification. The Credit Accumulation and Transfer (CAT) Policy may apply to these learners.</p> <p><b>Submission of final results</b></p> <p>Final results must be submitted to the QCTO in the required format, within 21 days of the date of the FISA, together with the following:</p> <ul style="list-style-type: none"> <li>• Completed QA Verification Report on the FISA (QCTO template: relevant sections).</li> <li>• A copy of the final Assessment Instrument used, as well as the marking guideline / rubric.</li> </ul>
14.	<b>Recognition of Prior Learning (RPL)</b>	<ul style="list-style-type: none"> <li>• Learners will gain access to the skills programme through RPL for access as provided for in the QCTO RPL Policy. RPL for access is conducted by accredited education institution, skills development provider or workplace accredited to offer that specific skills programme.</li> <li>• Learners who have acquired competencies in skills programme will be credited for such topics through RPL.</li> <li>• RPL for access to the Final Supervised Assessment: Accredited providers and approved workplaces must apply the internal assessment criteria specified in the skills programme document to establish and confirm prior learning and achievement of required competencies for the skills programme.</li> </ul>
15.	<b>Work Opportunities/further learning</b>	<p>This skills programme will enable qualifying learners to access other crane-related occupations in various industries.</p> <p>Should they be issued with the operator licence by the Department of Employment and Labour; this may allow them access to even more crane operations in even more diverse sectors of the economy.</p>
16.	<b>Skills Development Provider Accreditation Requirements</b>	<p>Physical Requirements:</p> <ul style="list-style-type: none"> <li>• Access to a Tower Crane-Top Slewing C41 and environment/work area</li> <li>• Categories of tools, equipment, attachments, safe operating procedures, manufacturer's specifications and processes in</li> </ul>

		<p>order for learners to apply correct and safe operating methods, principles and techniques of a Tower Crane-Top Slewing C41 operations</p> <p>Human Resource Requirements:</p> <ul style="list-style-type: none"> <li>• Facilitator: Should be a licensed and experienced Tower Crane-Top Slewing C41 Operator with at least 3 years' relevant experience working within a Tower Crane-Top Slewing C41 environment as an operator and qualified as a Facilitator.</li> <li>• Assessor: Should be a licensed and experienced Tower Crane-Top Slewing C41 Operator with at least 3 years' relevant experience working within a Tower Crane-Top Slewing C41 environment as an operator and qualified as an Assessor.</li> <li>• Practical coach/learner ratio 1 to 1 dependant on the cab's capacity.</li> </ul> <p>Legal and Safety Requirements:</p> <ul style="list-style-type: none"> <li>• Registered with DoEL</li> <li>• Compliant with the Road Traffic Act, as applicable</li> <li>• Compliant with National Code of Practice in line with the Driven Machinery Regulations Act</li> </ul> <p>Safety requirements</p> <ul style="list-style-type: none"> <li>• Compliance with the SHERQ</li> </ul>
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