

Revised Application Documentation: Version 4 /25 May, 2015

QUALIFICATION FILE – CONTACT DETAILS OF SUBMITTING BODY

Name and address of submitting body:

Rubber Skill Development Council

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Name and contact details of individual dealing with the submission

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List of documents submitted in support of the Qualifications File

1. **Qualification Pack – Bicycle/Rickshaw tyre building operator-Mono Band (Attached as Annexure 1)**
2. **Occupational Map (Attached as Annexure 2)**
3. **Concurrence letter from RSDC NOS Subcommittee (Attached as Annexure 4)**
4. **Composition of NOS Subcommittee (Attached as Annexure 5)**
5. **List of companies share the concurrence on Qualification Pack (Attached as Annexure 7)**
6. **Assessment Process flow (Attached as Annexure 8)**
7. **Web Link : Reports of Skill Gap study conducted by RSDC**
<http://rsdcindia.in/knowledge-base.html>

QUALIFICATION FILE SUMMARY

Qualification Title	Bicycle/Rickshaw tyre building operator-Mono Band - RSC/ Q 0501		
Body/bodies which will assess candidates	RSDC's affiliated assessment agency		
Body/bodies which will award the certificate for the qualification.	Rubber Skill Development Council		
Body which will accredit providers to offer the qualification.	Rubber Skill Development Council		
Occupation(s) to which the qualification gives access	Tyre Building Occupation under Tyre manufacturing process		
Proposed level of the qualification in the NSQF.	4		
Anticipated volume of training/learning required to complete the qualification.	350 Hrs		
Entry requirements / recommendations.	Class X, Desirable – 18 Years		
Progression from the qualification.	Bicycle/rickshaw tyre building operator-Mono band level role which leads to supervisor level in Tyre building occupation in tyre manufacturing process		
International comparability where known:	Not applicable		
Planned arrangements for RPL.	RPL assessment carries out as per normal RSDC assessment process.		
Formal structure of the qualification			
Title of unit or other component (include any identification code used)	Mandatory/ Optional	Estimated size (learning hours)	Level
<u>RSC/ N 0510 (Prepare building machine and collect components)</u>	M	90	4
<u>RSC/ N 0511 (Build bicycle/rickshaw monoband tyre)</u>	M	80	4
<u>RSC/ N 0512 (Perform post- tyre building activities)</u>	M	80	4
<u>RSC/ N5001 (To carry out housekeeping)</u>	M	25	Common across level (3 to 5)
<u>RSC/ N5002 (To carry out reporting and documentation)</u>	M	25	Common across level (3 to 5)
<u>RSC/ N5003 (To carry out quality checks)</u>	M	25	Common across level (3 to 5)
<u>RSC/ N5004 (To carry out problem identification and escalation)</u>	M	25	Common across level (3 to 5)

Please attach any document giving further detail about the structure of the qualification – eg a Curriculum or Qualification Pack.

Give details of the document here:

Qualification Pack – Bicycle/Rickshaw tyre building operator-Mono Band

SECTION 1

ASSESSMENT

Name of assessment body:

If there will be more than one assessment body for this qualification, give details.

- RSDC approved assessment body. At present RSDC has two affiliated assessment agency.
 1. Aspiring Minds
 2. Trendsetters

Kindly refer RSDC assessment protocol for selection of assessment agency as Annexure 9

Will the assessment body be responsible for RPL assessment?

- Yes

Give details of how RPL assessment for the qualification will be carried out and quality assured.

RPL assessment will be carries out as per normal RSDC assessment process.

Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, consistent and fair and show that these are in line with the requirements of the NSQF:

With uniformity and setting of National Occupational Standards (NOS), for different Jobs Roles the assessment of candidates will be at NOS level. Assessment criterion has been defined for each NOS and it includes both theoretical and practical skills on which the candidate will be assessed. The question suite which will be used to check the skills of the trainee would include

- **Theoretical test suite** – Will include multiple choice questions, audio-video question etc. which will test the trainee on his knowledge of the subject
- **Practical Knowledge suite** – Practical knowledge can be tested through Assessor driven evaluation, Situational Judgment Tests and Simulations. A mix of the three would be able to evaluate the trainee on his practical knowledge of the QP

RSDC's assessment strategy:

- Assessment criteria for each Qualification Pack developed, in which each Performance criteria (PC) assigned marks based on NOS separately for theoretical and practical skill
- Set of question bank developed to assess the theoretical and practical knowledge. To ensure the quality, each trainees get the unique set of question
- Student has to score minimum marks separately for theoretical and practical skill and overall percentage should also be 50%.
- Empanelment of subject matter expert as assessor to assess trainee specifically on practical skills
- Assessments are preferably conducted on tablets or pen or papers in regional languages according to the requirement.
- Questions are uploaded in the tablets only on the day of assessment
- It has been ensure that TP/trainer should not be present during assessment

Please attach any documents giving further information about assessment and/or RPL.

Give details of the document(s) here:

Assessment Process flow

ASSESSMENT EVIDENCE

Complete the following grid for each grouping of NOS, assessment unit or other component as listed in the entry on the structure of the qualification on page 1.

Assessable outcomes			Assessment criteria for the outcome		
Title of NOS	Elements	Performance Criteria	Total	Theory	Practical
RSC / N0510 Prepare building machine and collect components	Equipment readiness	PC1. Ensure that the tools and equipments required for tyre building are clean and ready to use.	4	0	4
		PC2. Follow machine and equipment preparation process as per SOP	14	9	5
		PC3. Check if the stitchers are functional and have adequate specified pressures as required by specification	12	8	4
		PC4. Make the correct building chuck available	7	0	7
		PC5. Ensure that no delays are caused as a result of improper preparation and failure to identify problems.	4	4	0
	Raw material appropriateness	PC6. Ensure the availability of all the components	3	0	3
		PC7. Check tags , markings , date and shift to ensure correctness of codes and the use of only within age components made	12	8	4
		PC8. Ensure that the component dimensions are as per the specification	14	7	7
		PC9. Check if all the beads are marked as required for facilitating assembling of correct bead	12	8	4
	Health & Safety	PC10. Ensure the use of certified tools and equipments for tyre building	3	3	0
		PC11. Avoid wearing loose shirt	2	2	0
		PC12. Adhere to all safety norms (such as wearing protective gloves,mask,earplugs and safety shoes).	8	6	2
		PC13. Avoid spillage and in case of spillage occur , follow safety measures as laid down by safety department	3	3	0
		PC14. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or	2	2	0

		the organizational standards.			
			100	60	40
RSC / N0511 Build Bicycle/Rickshaw Monoband Tyre	Raw material appropriateness	PC1. Ensure that all the components required for tyre building are available as per the specification and schedule.	4	0	4
		PC2. Check the component for suitability (appearance and other quality checks)	4	2	2
		PC3. Ensure solvent for freshening is available	2	0	2
	Operation	PC4. Follow sequence of consolidating components on the building drum as per guidelines issued by the technical	12	4	8
		PC5. Place beads in position on grooves in chuck . Wrap the ply as per SOP	10	3	7
		PC6. Ensure that beads are completely covered inside out with ply at an bias angle	7	3	4
		PC7. Apply stitchers and appropriate stitching pressures for proper and uniform stitching of treads with the ply/plies	12	5	7
		PC8. Ensure that the turn up and turn down are free of wrinkles and of any air trapment	12	5	7
		PC9. Collapse the chck to release the tyre after tyre building is over	3	0	3
		PC10. Use solvent to freshen the ply and tread incas they are low in tack	6	3	3
		PC11. Inspect the green tyre for blemishes and air pockets and do spot repair	10	4	6
		PC12. Place builder number for Identification and traceability	4	4	0
	Health & Safety	PC13. Maintain safe distance from rotating drum	2	0	2
		PC14. Avoid wearing loose shirt	2	2	0
		PC15. Minimal usage of solvent	2	0	2
		PC16. Adhere to all safety norms (such as wearing protective gloves, masks and earplugs)	6	3	3
		PC17. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.	2	2	0
			100	40	60
RSC / N0512 Perform Post-Tyre Building Activities	Operation	PC1. Place the builder number sticker on the bead area for traceability	7	4	3
		PC2. Marking on the tyre with crayon	4	0	4
		PC3. Inspect green tyre and check for wrinkles and air pockets; rectify	16	11	5

		/repair wrinkles and awl vent the airpocketsstore the OK green tyres on pin stand near the building machine for service man to pick up for curing			
		PC4. in plants equipped with overhead hook conveyors load the built green tyre on the hooks for transporting to curing area	3	0	3
		PC5. Maintain the equipments required for tyre building	9	9	0
		PC6. Report any repair and maintenance requirement to the Supervisor	3	3	0
		PC7. Send the unused components to the designated place	4	4	0
		PC8. Maintain the special equipments required for each tyre and size properly in the designated area	12	8	4
		PC9. Record number of tyres built and numbers scarpred	5	0	5
	Material disposal	PC10. Dispose of waste material safely, as per organizational SOP.	2	0	2
	Batch Marking	PC11. Ensure identification and traceability by marking code , date and shift on the tyre with crayon batch as per the instructions laid down by the company.	8	5	3
		PC12. Identify the tyre builder by placing builder number sticker on the bead toe area of the tyre (or as per SOP)	8	5	3
	Health & Safety	PC13. Handle the prepared product using hand gloves and other safety equipment.	8	4	4
		PC14. Adhere to all safety norms (such as wearing protective gloves , shoes, safety mask etc).	8	4	4
		PC15. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.	3	3	0
			100	60	40
RSC/N5001 To Carry Out Housekeeping	Pre housekeeping activities	PC1. Inspect the area while taking into account various surfaces	3	3	0
		PC2. Identify the material requirements for cleaning the areas inspected, by considering risk, time, efficiency and type of stain	3	3	0
		PC3. Ensure that the cleaning equipment is in proper working condition	3	3	0
		PC4. Select the suitable alternatives for cleaning the areas in case the appropriate equipment and materials	3	3	0

	are not available and inform the appropriate person			
	PC5. Plan the sequence for cleaning the area to avoid re-soiling clean areas and surfaces	3	3	0
	PC6. Inform the affected people about the cleaning activity	2	2	0
	PC7. Display the appropriate signage for the work being conducted	3	3	0
	PC8. Ensure that there is adequate ventilation for the work being carried out	3	3	0
	PC9. Wear the personal protective equipment required for the cleaning method and materials being used	3	3	0
Operations	PC10. Use the correct cleaning method for the work area, type of soiling and surface	3	3	0
	PC11. Carry out cleaning activity without disturbing others	3	3	0
	PC12. Deal with accidental damage, if any, caused while carrying out the work	3	3	0
	PC13. Report to the appropriate person any difficulties in carrying out your work	3	3	0
	PC14. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill	3	3	0
Post housekeeping activities	PC15. Ensure that there is no oily substance on the floor to avoid slippage	9	3	6
	PC16. Ensure that no scrap material is lying around	9	3	6
	PC17. Maintain and store housekeeping equipment and supplies	3	3	0
	PC18. Follow workplace procedures to deal with any accidental damage caused during the cleaning process	3	3	0
	PC19. Ensure that, on completion of the work, the area is left clean and dry and meets requirements	8	2	6
	PC20. Return the equipment, materials and personal protective equipment that were used to the right places making sure they are clean, safe and securely stored	3	3	0
	PC21. Dispose the waste garnered from the activity in an appropriate manner	9	3	6
	PC22. Dispose of used and un-used solutions according to manufacturer's instructions, and clean the equipment thoroughly	9	3	6

	General	PC23. Maintain schedules and records for housekeeping duty	3	3	0
		PC24. Replenish any necessary supplies or consumables	3	3	0
			100	70	30
RSC/N5002 To Carry Out Reporting And Documentation	Reporting	PC1. Report data/problems/incidents as applicable in a timely manner	12	8	4
		PC2. Report to the appropriate authority as laid down by the company	12	8	4
		PC3. Follow reporting procedures as prescribed by the company	12	8	4
	Recording and Documentation	PC4. Identify documentation to be completed relating to one's role	10	6	4
		PC5. Record details accurately an appropriate format	16	6	10
		PC6. Complete all documentation within stipulated time according to company procedure	14	4	10
		PC7. Ensure that the final document meets with the requirements of the persons who requested it or make any amendments accordingly	6	4	2
		PC8. Make sure documents are available to all appropriate authorities to inspect	6	4	2
	Information Security	PC9. Respond to requests for information in an appropriate manner whilst following organizational procedures	6	6	0
		PC10. Inform the appropriate authority of requests for information received	6	6	0
				100	60
RSC/N5003 To Carry Out Quality Checks	Inspection	PC1. Ensure that total range of checks are regularly and consistently performed	24	10	14
		PC2. Use appropriate measuring instruments, equipment, tools, accessories etc ,as required	24	10	14
	Analysis	PC3. Identify non-conformities to quality assurance standards	6	4	2
		PC4. Identify potential causes of non-conformities to quality assurance standards	5	3	2
		PC5. Identify impact on final product due to non-conformance to company standards	5	3	2
		PC6. Evaluating the need for action to ensure that problems do not recur	6	4	2
		PC7. Suggest corrective action to address problem	5	3	2
		PC8. Review effectiveness of corrective action	5	3	2
	Reporting	PC9. Interpret the results of the quality check correctly	4	4	0

		PC10. Take up results of the findings with QC in charge/appropriate authority.	3	3	0
		PC11. Take up the results of the findings within stipulated time	3	3	0
		PC12. Record of results of action taken	3	3	0
		PC13. Record adjustments not covered by established procedures for future reference	3	3	0
		PC14. Review effectiveness of action taken	2	2	0
		PC15. Follow reporting procedures where the cause of defect cannot be identified	2	2	0
			100	60	40
RSC/N5004 To Carry Out Problem Identification And Escalation	Problem Identification	PC1. Identify defects/indicators of problems	7	4	3
		PC2. Identify any wrong practices that may lead to problems	6	3	3
		PC3. Identify practices that may impact the final product quality	6	3	3
		PC4. Identify if the problem has occurred before	5	3	2
		PC5. Identify other operations that might be impacted by the problem	6	4	2
		PC6. Ensure that no delays are caused as a result of failure to escalate problems	5	3	2
	Necessary Action	PC7. Take appropriate materials and sample, conduct tests and evaluate results to establish reasons to confirm suspected reasons for non-conformance (where required)	8	5	3
		PC8. Consider possible reasons for identification of problems	8	5	3
		PC9. Consider applicable corrections and formulate corrective action	3	3	0
		PC10. Formulate action in a timely manner	3	3	0
		PC11. Communicate problem/remedial action to appropriate parties	7	5	2
		PC12. Take corrective action in a timely manner	2	2	0
		PC13. Take corrective action for problems identified according to the company procedures	2	2	0
		PC14. Report/document problem and corrective action in an appropriate manner	8	5	3
		PC15. Monitor corrective action	2	2	0
		PC16. Evaluate implementation of corrective action taken to determine if the problem has been resolved	2	2	0
		PC17. Ensure that corrective action	2	2	0

		selected is viable and practical			
		PC18. Ensure that correct solution is identified to an identified problem	2	2	0
		PC19. Take corrective action for problems identified according to the company procedures	1	1	0
		PC20. Ensure that no delays are caused as a result of failure to take necessary action	1	1	0
	Problem Escalation	PC21. Escalate problem as per laid down escalation matrix	4	3	1
		PC22. Escalate the problem within stipulated time	4	3	1
		PC23. Escalate the problem in an appropriate manner	3	2	1
		PC24. Ensure that no delays are caused as a result of failure to escalate problems	3	2	1
			100	70	30

Means of assessment 1

The assessment comprise of :

- Written Assessment
- Viva
- Practical assessment

Means of assessment 2

Pass/Fail

The Pass mark of written assessment is 40% and for viva and practical assessment is 40%. Total passing mark is 50%.

SECTION 2

EVIDENCE OF NEED

What evidence is there that the qualification is needed?

Qualification pack has been developed by suggestion and approval of RSDC NOS Subcommittee, which consist of senior leaders and experts from rubber Industry and has been further substantiated by skill gap study conducted by RSDC

What is the estimated uptake of this qualification and what is the basis of this estimate?

We had conducted skill gap study in different states of the country to understand the demand and supply for estimated uptake. Assuming the study finding base for entire rubber industry across the nation, employment opportunity is expected to grow approximately at the rate of 30% in the coming 5 year.

Reports of Skill gap study conducted uploaded on the below link:

<http://rsdcindia.in/knowledge-base.html>

What steps were taken to ensure that the qualification(s) does/do not duplicate already existing or planned qualifications in the NSQF?

Mapping has been done with National Classification of Occupation 2004 to ensure the qualification does not duplicate.

What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated?

Qualification Packs shall be revised annually.

Please attach any documents giving further information about any of the topics above.

Give details of the document(s) here:

SECTION 3

SUMMARY EVIDENCE OF LEVEL

Level of qualification: 4

Summary of Direct Evidence (from learning outcomes):

The Bicycle/Rickshaw tyre building operator-Mono Band is accustomed in periodic work, have knowledge to demonstrate skills, using tools & quality concepts and he is able to disseminate with clear responsibility of work, with minimum supervision.

Skill requires fulfil roles and responsibilities along with activities matched with NSQF level 4.

Summary of other evidence (if used):

Bicycle/Rickshaw tyre building operator-Mono Band - RSC/ Q 0501					
Process Required	Professional Knowledge	Professional Skill	Core Skill	Responsibility	Level
<p>Tyre building operator is expected to ensure cleanliness & safety in Tyre/ tube repair area, prepare building machine and collect all components require for tyre building.</p> <p>He/She needs to prepares Consolidate components on the building chuck as per guidelines issued by the Technical and also to remove the green tyre from the chuck and place builders stamp for traceability</p> <p>He/She needs to identify green tyre, inspect , repair and and hang them on pin stand provided on every building machine</p> <p>The activities identified are the familiar and routine</p>	<p>Tyre building operator is expected to have <i>factual knowledge of processes and understand the risk of not following defined procedures.</i></p> <p>Tyre building operator needs to have knowledge of tyre building chuk and understanding on setting the widths and selection of bead rings and components for the building of desired size/s.</p> <p>He/She is expected to have knowledge of Stitches and their settings in tyre building, maintain correct spacing width on building rings, maintain stitcher pressure and its impact and Sequential application of components (beads, ply and tread)</p> <p>He/She is expected to have knowledge of entrapped air in bead area, Impact of tyres getting scrapped due to building fault and Implications of poor or loose turn up leads to poor green tyre with too many patch repairs.</p> <p>He/She needs to know types of defects leading to rejections and their</p>	<p>Tyre building operator handles building machine, chuck and other accessories, equipments used in building process and components used in tyre building.</p> <p>He/She needs to have the capacity to apply technology, combining the physical and sensory skills needed to operate equipment with the understanding of scientific and technological principles needed to explore and adapt systems</p> <p>He/She needs to identify the problems pertaining to the working of repairing tools based on visual inspection and work efficiency and able to diagnose common problems in the machine based</p>	<p>Tyre building operator is expected to have basic communication skills to fill appropriate forms, process charts and activity logs, etc and also understand <i>application of basic arthematic principles.</i></p> <p>Tyre building operator is expected to conduct themselves in ways, which show a basic understanding of the <i>social and professional environment of working on the shopfloor.</i></p>	<p>The tyre building operator is responsible to build the bicycle/rickshaw tyre by assembling the different components on the tyre building - chucks.</p> <p>So the tyre building operator is to work on tyre building machine and completely responsible his <i>own learning.</i></p> <p>He/She is continuously engaged in the <i>self-learning process</i></p> <p>Tyre building operator is majorly responsible for his own job and self learning process which justifies the pegging of the QP at level 4 and not directly involved in some learning of others (which is a requirement for Level 5). In his routine activity he is</p>	4

<i>activities in nature and he handles all this independently (with minimal or no supervision).</i>	indicators, reasons and possible solutions	on visual inspection, sound etc Thus he is <i>practically engaged</i> in the production activity.		free from supervision (which is a requirement of level 3).	
Level 4	Level 4	Level 4	Level 4	Level 4	

SECTION 4

EVIDENCE OF RECOGNITION OR PROGRESSION

What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?

Occupation Map has been created and attached.

Please attach any documents giving further information about any of the topics above.