

## QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR RUBBER INDUSTRY



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### What are Occupational Standards(OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

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### Introduction

#### Qualifications Pack- Tyre Building Operator : Off the Road Tyre

**SECTOR:** RUBBER INDUSTRY

**SUB-SECTOR:** Tyre

**OCCUPATION:** Tyre Building

**REFERENCE ID:** RSC/ Q 0504

**ALIGNED TO:** NCO-2004/8231.80

**Brief Job Description:** A building operator for off the road tyres is responsible to build off the road green tyre by assembling the different components on the tyre building drum.

**Personal Attributes:** This job requires the individual to have an eye for detail, work independently and be comfortable in performing laborious work. He should be systematic, attentive and focused while undertaking the activities. He must be able to handle multiple tasks and strive to achieve the set objectives on time with best quality. He should be fit, energetic, tall and have a strong built.

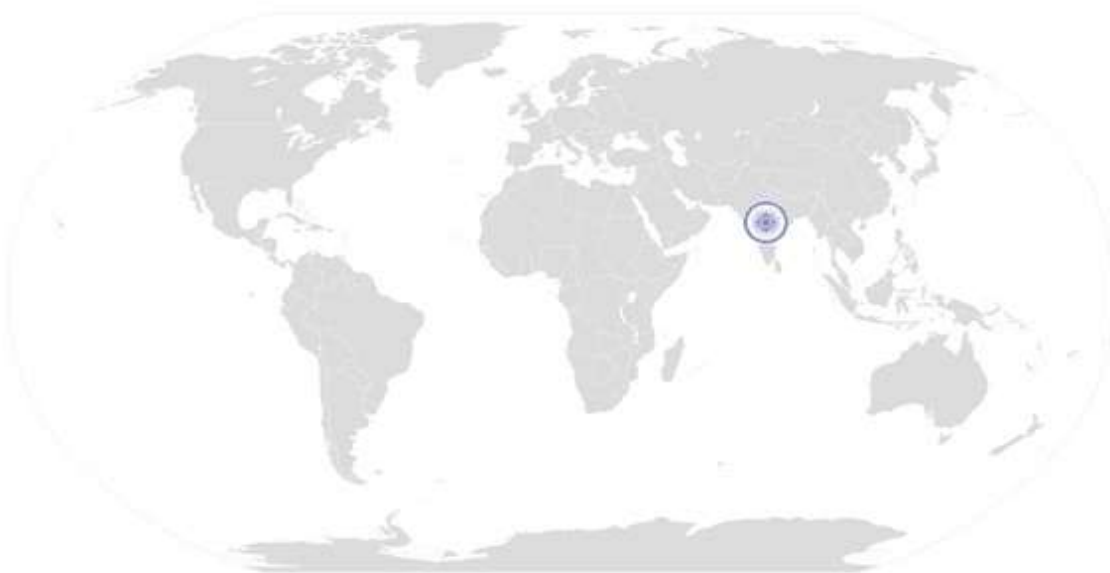
Job Details	<b>Qualifications Pack Code</b>	<b>RSC/ Q 0504</b>		
	<b>Job Role</b>	<b>Tyre Building Operator : Off the Road Tyre</b>		
	<b>Credits(NSQF)</b>	<b>TBD</b>	<b>Version number</b>	<b>1.0</b>
	<b>Sector</b>	<b>Rubber</b>	<b>Drafted on</b>	<b>02/12/14</b>
	<b>Sub-sector</b>	<b>Tyre</b>	<b>Last reviewed on</b>	<b>02/12/14</b>
	<b>Occupation</b>	<b>Tyre Building</b>	<b>Next review date</b>	<b>02/12/15</b>
	<b>NSQC Cleanace on</b>	<b>20/07/2015</b>		

<b>Job Role</b>	<b>Tyre Building Operator: Off the Road Tyre</b>
<b>Role Description</b>	A building operator for off the road tyres is responsible to build off the road green tyre by assembling the different components on the tyre building drum.
<b>NSQF level</b>	4
<b>Minimum Educational Qualifications*</b>	Class X/ITI
<b>Maximum Educational Qualifications*</b>	ITI/Graduate in Science
<b>Training</b> (Suggested but not mandatory)	Training on tyre building on drums
<b>Minimum Job Entry Age</b>	18 years
<b>Experience</b>	Worked as a semi-skilled helper for minimum 6 months in the same role.
<b>Applicable National Occupational Standards (NOS)</b>	<b>Compulsory:</b> <ol style="list-style-type: none"> <li>1. <a href="#">RSC/ N 0519 (Prepare building machine and collect components)</a></li> <li>2. <a href="#">RSC/ N 0520 ( Build off the road green tyre )</a></li> <li>3. <a href="#">RSC/ N 0521 ( Perform post- tyre building activities )</a></li> <li>4. <a href="#">RSC/ N 5001 (To carry out housekeeping)</a></li> <li>5. <a href="#">RSC/ N 5002 (To carry out reporting and documentation)</a></li> <li>6. <a href="#">RSC/ N 5003 (To carry out quality checks)</a></li> <li>7. <a href="#">RSC/ N 5004 ( To carry out problem identification and escalation )</a></li> </ol> <b>Optional:</b> NA
<b>Performance Criteria</b>	As described in the relevant OS units

Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of OS.
Job Role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
OS	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
NOS	NOS are Occupational Standards which apply uniquely in the Indian context.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Qualifications Pack	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
Unit Code	Unit Code is a unique identifier for an Occupational Standard , which is denoted by an 'N'.
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard.
Organizational Context	Organizational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills or Generic Skills	Core Skills or Generic Skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the OS , these include communication related skills that are applicable to most job roles.

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# National Occupational Standard



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## Overview

This unit is about preparing the building machine and collecting components for building off the road green tyre.

## Prepare building machine and collect components

<b>Unit Code</b>	<b>RSC / N 0519</b>
<b>Unit Title (Task)</b>	<b>Prepare building machine and collect components</b>
<b>Description</b>	This unit is about preparing the building machine and collecting components for building off the road green tyre.
<b>Scope</b>	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> <li>• Prepare building machine</li> <li>• Collect all the components required for building off the road green tyre</li> <li>• Ensure housekeeping and safety in tyre building area</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Equipment readiness</b>	<p>To be competent, the user/individual on the job must be able to</p> <p>PC1. Ensure that the tools and equipments required for tyre building are clean and ready to use.</p> <p>PC2. Follow machine and equipment preparation process as per SOP</p> <p>PC3. Check if the stitchers, cross rollers are functional and have adequate specified pressures as required by specification</p> <p>PC4. Make the correct building drum available</p> <p>PC5. Measure the drum width and set it as per the required specification</p> <p>PC6. Ensure that no delays are caused as a result of improper preparation and failure to identify problems.</p>
<b>Raw material appropriateness</b>	<p>PC1. Ensure the availability of all the components – Bands, bead bundles, breaker, tread, sidewall, chafer etc</p> <p>PC2. Check tags, markings, date and shift to ensure correctness of codes and the use of only within age components made</p> <p>PC3. Ensure that the component dimensions are as per the specification</p> <p>PC4. Check if all the bands are marked as required for facilitating assembling in the sequentially</p> <p>PC5. Check if the beads are properly identified and are of correct numbers and turns</p> <p>PC6. Check if bead bundles are fully wrapped with bead wrap have apex and wrapped with flipper fabric</p>
<b>Health &amp; Safety</b>	<p>PC1. Ensure the use of certified tools and equipments for tyre building</p> <p>PC2. Avoid wearing loose shirt</p> <p>PC3. Adhere to all safety norms (such as wearing protective gloves, mask and safety shoes).</p> <p>PC4. Avoid spillage and in case of spillage occur, follow safety measures as laid</p>

**Prepare building machine and collect components**

	<p>down by safety department</p> <p>PC5. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.</p>
<p><b>Knowledge and Understanding (K)</b></p>	
<p><b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. Implications of poorly prepared tools, equipment and components.</p> <p>KA2. Importance of identifying non-conforming materials and their storage.</p> <p>KA3. Risk and impact of not following defined procedures/work instructions.</p> <p>KA4. Escalation matrix for reporting identified problems</p> <p>KA5. Types of documentation in organization and importance of the same</p> <p>KA6. Records to be maintained and the implications of their non-maintenance.</p> <p>KA7. Importance of housekeeping activities.</p> <p>KA8. Health, safety and environment guidelines, legislation and regulations as applicable.</p> <p>KA9. Personal protection (which protective equipment to be used and how).</p> <p>KA10. Impact of poor practices on health, safety and environment.</p> <p>KA11. Potential hazards and actions to minimize them.</p> <p>KA12. The escalation matrix and procedures for reporting hazards.</p> <p>KA13. Importance of FIFO and good shop floor practices (for example, 5S).</p> <p>KA14. Impact of various practices on cost, quality, productivity, delivery and safety.</p> <p>KA15. Handover/Takeover of the equipment/work area as per the organizational SOP.</p>
<p><b>B. Technical Knowledge</b></p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Processing with different building machines- its operation, understanding of different switches, levers, foot pedals and emergency brakes</p> <p>KB2. Proper handling different drums , drum setting and building various sizes of the tyres</p> <p>KB3. Proper handling of accessories such as strip laminators/ tread servors/ band loaders/spinners</p> <p>KB4. Working of the electronic gadgets provided on the building machine panels</p> <p>KB5. Importance of communicating with electrical and mechanical engineers /technicians in case of requirements of trouble shooting defective equipment</p> <p>KB6. Selection of correct drum -OD and the drum width selection</p> <p>KB7. Stitchers and their settings in tyre building</p> <p>KB8. Setting of stitcher pressure and its impact</p> <p>KB9. Sequential application of bands and its impact if done incorrectly</p> <p>KB10. Implications of poor off centre application of bead bundles and its effect on cured tyre</p> <p>KB11. Impact of off centre application of tread</p> <p>KB12. Knowledge of chafer and side wall and its effect on cured tyre</p>



**Prepare building machine and collect components**

	<p>KB13. Effect of wrong dimension of the components</p> <p>KB14. Various abnormalities and suitable response for abnormalities in equipment performance.</p> <p>KB15. Implications of delays in the preparation process.</p> <p>KB16. Types of defects leading to rejections and their indicators, reasons and possible solutions.</p> <p>KB17. Cleanliness and safety requirements for commencing building operation.</p> <p>KB18. Units of measurement.</p> <p>KB19. Response to emergencies, for example, power failures, fire, system failures, spillages and manual intervention to avoid disasters.</p> <p>KB20. Knowledge of appropriate batch sizes with respect to appropriate component.</p> <p>KB21. Basic arithmetic, geometry, electronics, physics and chemistry</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Construct simple sentences and express ideas clearly through written communication</p> <p>SA2. Fill up appropriate activity logs in required format of the company</p> <p>SA3. Write simple letters, mails, etc and prepare tags</p> <p>SA4. Perform functional mathematical operations</p>
	<b>Reading and Understanding Skills</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc</p> <p>SA6. Read images, graphs, diagrams</p> <p>SA7. Understand the various coding systems as per company norms</p>
	<b>Oral Communication (Listening and Speaking skills)</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA8. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SA9. Respond appropriately to any queries</p> <p>SA10. Communicate with supervisor</p> <p>SA11. Communicate with upstream and downstream teams</p> <p>SA12. Work in a team and other behavioral skills required to support the small group activities</p>
<b>Integrity</b>	

### Prepare building machine and collect components

	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA13. Practice honesty with respect to company property and time</p> <p>SA14. Communicate with people in a form and manner and using language that is open and respectful</p> <p>SA15. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust</p>
	<p><b>Motivation</b></p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA16. Take responsibility for completing one’s own work assignment</p> <p>SA17. Take initiative to enhance/learn skills in ones’s area of work</p> <p>SA18. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one’s learning.</p> <p>SA19. Is open to new ways of doing things</p> <p>SA20. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.</p>
	<p><b>Reliability</b></p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA21. Avoid absenteeism</p> <p>SA22. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations</p> <p>SA23. Work in disciplined factory environment</p> <p>SA24. Be punctual</p>
<b>B. Professional Skills</b>	<p><b>Material and Equipment Handling</b></p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. Handle building machine, drum and other assessorY equipments used in building process.</p> <p>SB2. Handle the components used in tyre building.</p> <p>SB3. Handling of various types of material handling equipment like trolleys, chain hoists etc</p> <p>SB4. 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><b>Analytical Thinking</b></p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB5. Diagnose common problems in the building machine based on visual inspection, sound etc</p> <p>SB6. Selection of appropriate drum</p> <p>SB7. Suggest improvements(if any) in process based on experience</p>



## NOS Version Control

<b>NOS Code</b>	RSC / N 0519		
<b>Credits(NSQF)</b>	TBD	<b>Version number</b>	1.0
<b>Industry</b>	RubberManufacturing	<b>Drafted on</b>	02/12/14
<b>Industry Sub-sector</b>	Tyre	<b>Last reviewed on</b>	02/12/14
<b>Occupation</b>	Tyre Building	<b>Next review date</b>	02/12/15



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# National Occupational Standard



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## Overview

This unit about building off the road green tyre.

<b>Unit Code</b>	<b>RSC / N 0520</b>
<b>Unit Title (Task)</b>	<b>Build off the road green tyre</b>
<b>Description</b>	This unit is about building off the road green tyre.
<b>Scope</b>	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> <li>• Ensure housekeeping and safety in tyre building area.</li> <li>• Consolidate components on the building drum as per guidelines issued by the technical</li> <li>• Remove the green tyre from the drum</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Raw material appropriateness</b>	<p>To be competent, the user/individual on the job must be able to :</p> <p>PC1. Ensure that all the components required for tyre building are available as per the specification and schedule.</p> <p>PC2. Check the component for suitability ( appearance and other quality checks)</p> <p>PC3. Ensure drum paint , stearic acid blocks , solvent for freshening and stripping are available</p>
<b>Operation</b>	<p>PC1. Keep 2/3 beads ( as per requirement) on the inboard side of the drum spindle depending upon the construction 2 bead or 3 bead</p> <p>PC2. Apply drum paint on the flange area of the drum to facilitate bead application and turn up</p> <p>PC3. Apply first band on the drum and ensure it is properly centered</p> <p>PC4. Use stearic acid blocks on the bands to facilitate band movement on the drum while building the tyre</p> <p>PC5. Carry out proper and uniform stitching of bands and other components</p> <p>PC6. Place first bead bundle on either side of the drum flange passing over the first band ; turn up band to envelope the beads firmly at the flange area</p> <p>PC7. Apply second band and second bead set on top of first band and enclose the beads again – Use stearic acid blocks to facilitate the sliding and centering of second and subsequent band on the building drum with the band</p> <p>PC8. Repeat the operation using the third band if it is 3 bead construction</p> <p>PC9. Apply outer band and ensure it is turned down to the bead toe</p> <p>PC10. Apply breakers on the drum ensuring proper centering in case outer band is without breakers</p> <p>PC11. Apply the tread; chafer on the bead area and side walls on the sides</p> <p>PC12. Use stearic acid blocks on the bands to facilitate band movement on the drum while building the tyre</p> <p>PC13. Apply stitchers with appropriate stitching pressures for proper and uniform stitching of bands and other components</p>

### Build Off the Road Green Tyre

	<p>PC14. Ensure that the turn up and turn down are free of wrinkles and of any air trapment</p> <p>PC15. Collapse the drum to release the tyre from the drum after tyre building is over</p> <p>PC16. Use small quantity of solvent to facilitate tyre release from drum</p> <p>PC17. Inspect the green tyre for blemishes and airpockets – Awl vent the trapped air, if any</p>
<p><b>Health &amp; Safety</b></p>	<p>PC18. Maintain safe distance from rotating drum</p> <p>PC19. Avoid wearing loose shirt</p> <p>PC20. Minimal usage of solvent</p> <p>PC21. Adhere to all safety norms (such as wearing protective gloves, masks and earplugs)</p> <p>PC22. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.</p>
<p><b>Knowledge and Understanding (K)</b></p>	
<p><b>A. Organizational Context</b> (Knowledge of the company/ organization and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. Building operation and its importance.</p> <p>KA2. Implications of poorly prepared material and power failures.</p> <p>KA3. The material disposal procedure, importance of appropriate disposal of material and implications of not following the material disposal procedure.</p> <p>KA4. How to conduct quality and damage checks and their importance.</p> <p>KA5. Importance of identifying non-conforming products and their storage.</p> <p>KA6. Risk and impact of not following defined procedures/work instructions.</p> <p>KA7. The escalation matrix for reporting identified issues.</p> <p>KA8. Types of documentation in the organization and their importance.</p> <p>KA9. Records to be maintained and the implications of their non-maintenance.</p> <p>KA10. Importance of housekeeping and good shop floor practices</p> <p>KA11. Health, safety and environment guidelines, legislations and regulations, as applicable.</p> <p>KA12. Personal protection (which protective equipment to be used and how).</p> <p>KA13. Impact of poor practices on health, safety and environment.</p> <p>KA14. Potential hazards and actions to minimize them.</p> <p>KA15. The escalation matrix and procedures for reporting hazards.</p> <p>KA16. Importance of FIFO</p> <p>KA17. Impact of various practices on cost, quality, productivity, delivery and safety.</p> <p>KA18. Handover/Takeover of the equipment/work area as per organizational SOP.</p>

**Build Off the Road Green Tyre**

<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Processing with different building machines- its operation, understanding of different switches, levers, foot pedals and emergency brakes</p> <p>KB2. Use of accessories such as strip laminators , cold feed extruders ,spinners and other accessories used for facilitating assembly</p> <p>KB3. Proper handling different drums , drum setting and building various sizes of the tyres</p> <p>KB4. Proper application of paint ( drum paint )</p> <p>KB5. Working of the electronic gadgets provided on the building machine panels</p> <p>KB6. Importance of communicating with electrical and mechanical engineers /technicians in case of requirements of trouble shooting defective equipment</p> <p>KB7. Use of solvent for freshening and tyre stripping off the drum</p> <p>KB8. Proper method of drum collapsing</p> <p>KB9. Stitchers and their settings in tyre building</p> <p>KB10. Sequential application of bands and its impact if done incorrectly</p> <p>KB11. Implications of poor off centre application of bead bundles and its effect on cured tyre</p> <p>KB12. Impact of off centre application of tread</p> <p>KB13. Knowledge of chafer and side wall and its effect on cured tyre</p> <p>KB14. Effect of wrong dimension of the components</p> <p>KB15. Proper usage of solvent while extracting green tyre from drum without causing damage to liners</p> <p>KB16. Implications of poor or loose turn up</p> <p>KB17. Importance of careful inspection</p> <p>KB18. Implications of poor green tyre with too many patch repairs</p> <p>KB19. Appropriate component usage</p> <p>KB20. Effect of entrapped air in bead area, sidewall and liners</p> <p>KB21. Impact of tyres getting scrapped due to building fault</p> <p>KB22. Implications of poor performance of Tyres in the field due building related problems</p> <p>KB23. Importance of safety measures used during the process to avoid any accident or injury</p> <p>KB24. Process and importance of quality checks.</p> <p>KB25. Types of defects leading to rejections and their indicators, reasons and possible solutions.</p> <p>KB26. Potential problems in the tyre building operations</p> <p>KB27. Units of measurement.</p> <p>KB28. Response to emergencies, for example, power failures, fire, system failures and manual intervention to avoid disasters.</p>
<b>Skills (S)</b>	
<b>A. Core Skills/</b>	<b>Writing Skills</b>

<b>Generic Skills</b>	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Construct simple sentences and express ideas clearly through written communication</p> <p>SA2. Fill up appropriate technical forms , activity logs in required format of the company</p> <p>SA3. Write simple letters, mails, etc</p> <p>SA4. Perform basic functional mathematical operations</p>
	<b>Reading and Understanding Skills</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc</p> <p>SA6. Read images, graphs, diagrams</p> <p>SA7. Understand the various coding systems as per company norms</p>
	<b>Oral Communication (Listening and Speaking skills)</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA8. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SA9. Respond appropriately to any queries</p> <p>SA10. Communicate with supervisor</p> <p>SA11. Communicate with upstream and downstream teams</p> <p>SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme)</p>
	<b>Integrity</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA13. Practice honesty with respect to company property and time</p> <p>SA14. Communicate with people in a form and manner and using language that is open and respectful</p> <p>SA15. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust</p>
	<b>Motivation</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA16. Take responsibility for completing one's own work assignment</p> <p>SA17. Take initiative to enhance/learn skills in ones's area of work</p> <p>SA18. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning.</p> <p>SA19. Is open to new ways of doing things</p> <p>SA20. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.</p>
	<b>Reliability</b>



	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA21. Avoid absenteeism</p> <p>SA22. Act objectively, rather than impulsively or emotionally when faced with difficult/stressful or emotional situations</p> <p>SA23. Work in disciplined factory environment</p> <p>SA24. Be punctual</p>
<p><b>B. Professional Skills</b></p>	<p><b>Material and Equipment Handling</b></p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. Handle tyre and drums</p> <p>SB2. Handle the components required for tyre building.</p> <p>SB3. Handle paint and solvents</p> <p>SB1. Handling of various types of material handling equipment.</p> <p>SB2. Handle different equipments used for strip/slab building</p>
	<p><b>Analytical Thinking</b></p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB3. Diagnose common problems in the tyre, drum and components based on visual inspection</p> <p>SB4. Resolve the problems related to improper application of components</p> <p>SB5. Suggest improvements(if any) in process based on experience</p> <p>SB6. Proper collapsing of drum using correct amount of solvent in appropriate way</p>



## NOS Version Control

<b>NOS Code</b>	RSC / N 0520		
<b>Credits(NSQF)</b>	TBD	<b>Version number</b>	1.0
<b>Industry</b>	Rubber Manufacturing	<b>Drafted on</b>	02/12/14
<b>Industry Sub-sector</b>	Tyre	<b>Last reviewed on</b>	02/12/14
<b>Occupation</b>	Tyre Building	<b>Next review date</b>	02/12/15

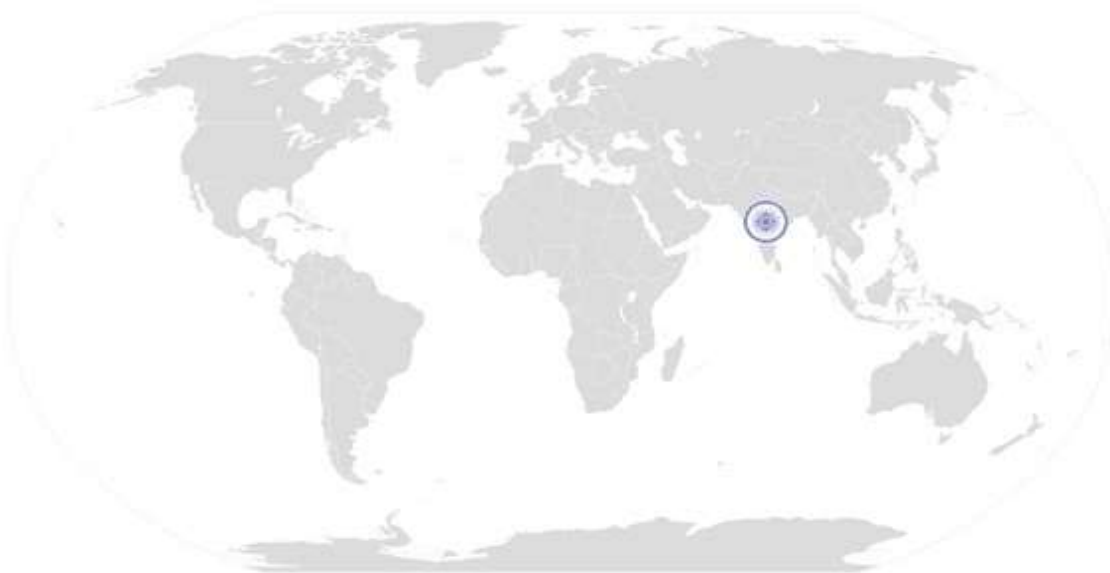


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# National Occupational Standard



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## Overview

This unit is about performing activities after the building operation for off the road green tyre is completed.

## Perform Post-Tyre Building Activities

<b>Unit Code</b>	RSC / N 0521
<b>Unit Title (Task)</b>	<b>Perform post - tyre building activities</b>
<b>Description</b>	This unit is about performing activities after the building operation for off the road green tyre is completed.
<b>Scope</b>	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> <li>• Ensuring housekeeping and safety in the tyre building area</li> <li>• Identify the green tyre, inspect , repair and send the tyre to suitable storage area for painting and curing at a later date</li> <li>• Maintain the special equipments required for each tyre and size properly in the designated area</li> <li>• Report any repair and maintenance requirement to the Supervisor</li> <li>• Handling of unused components</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Operation</b>	<p>To be competent, the user/individual on the job must be able to</p> <p>PC1. Place the builder number sticker on the bead area for traceability</p> <p>PC2. Marking on the tyre with crayon</p> <p>PC3. Inspect green tyre and check for wrinkles and air pockets; rectify /repair wrinkles and awl vent the airpockets</p> <p>PC4. Do patch repair if inner liner is damaged or with minor holes</p> <p>PC5. Send the tyre to painting area in proper designated storage trucks</p> <p>PC6. Maintain the equipments required for tyre building</p> <p>PC7. Report any repair and maintenance requirement to the Supervisor</p> <p>PC8. Send the unused components to the designated place</p> <p>PC9. Maintain the special equipments required for each tyre and size properly in the designated area</p>
<b>Material disposal</b>	PC10. Dispose of waste material safely, as per organizational SOP.
<b>Batch Marking</b>	<p>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.</p> <p>PC12. Identify the tyre builder by placing builder number sticker on the bead toe area of the tyre ( or as per SOP)</p>
<b>Health &amp; Safety</b>	<p>PC13. Handle the prepared product using hand gloves and other safety equipment.</p> <p>PC14. Adhere to all safety norms (such as wearing protective gloves , shoes, safety mask etc).</p>

**Perform Post-Tyre Building Activities**

	<p>PC15. Comply with health, safety, environment guidelines and regulations in accordance with international/national standards or the organizational standards.</p>
<p><b>Knowledge and Understanding (K)</b></p>	
<p><b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. Implications of poorly prepared product.          KA2. Significance of code marking.          KA3. Importance of identifying non-conforming products and their storage.          KA4. Risk and impact of not following defined procedures/work instructions.          KA5. The escalation matrix and procedures for reporting identified problems.          KA6. Types of documentation in the organization and their importance.          KA7. Records to be maintained and the implications of their non-maintenance.          KA8. Importance of housekeeping and good shop floor practices          KA9. Health, safety, and environment guidelines, legislations and regulations as applicable.          KA10. Personal protection (which protective equipment to be used and how).          KA11. Potential hazards and actions to minimize them.          KA12. Impact of poor practices on health, safety and environment.          KA13. The escalation matrix and procedures for reporting hazards.          KA14. Handover/Takeover of the equipment/work area as per organizational SOP.</p>
<p><b>B. Technical Knowledge</b></p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Importance of inspection and repair          KB2. Proper usage of awl vent          KB3. Importance of storing the unused component at designated place.          KB4. Process and importance of quality checks.          KB5. Code marking techniques.          KB6. Implications of incorrect marking.          KB7. Implications of inappropriate waste disposal.          KB8. Types of defects leading to rejections and their indicators, reasons and possible solutions.          KB9. Units of measurement          KB10. Coding systems for identification and traceability.          KB11. The usage of different types of fire extinguishers</p>
<p><b>Skills (S)</b></p>	
<p><b>A. Core Skills/ Generic Skills</b></p>	<p style="text-align: center;"><b>Writing Skills</b></p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Construct simple sentences and express ideas clearly through written communication          SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company</p>

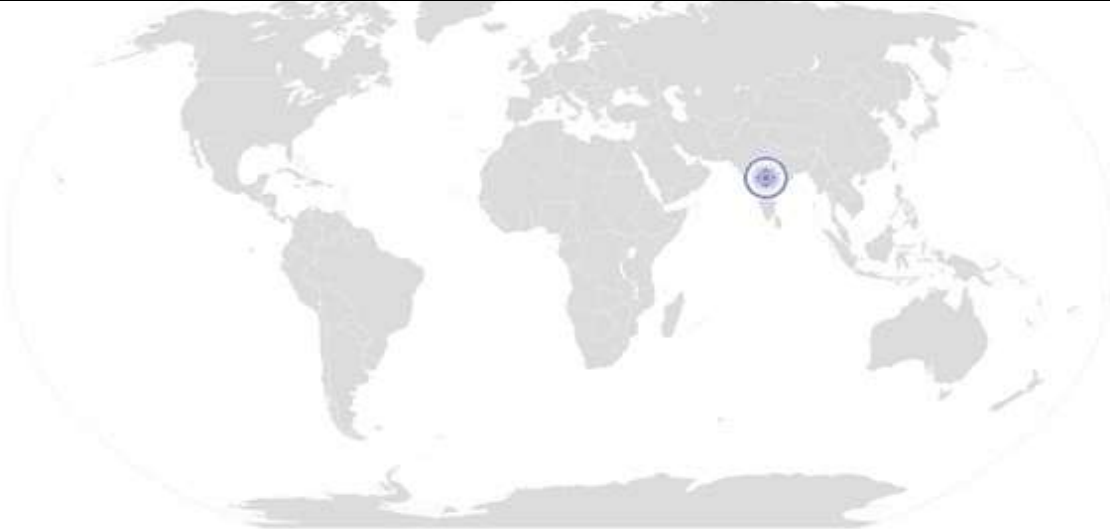
### Perform Post-Tyre Building Activities

	<p>SA3. Write simple letters, mails, etc</p> <p>SA4. Perform basic functional mathematical operations</p>
	<b>Reading and Understanding Skills</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc</p> <p>SA6. Read images, graphs, diagrams</p> <p>SA7. Understand the various coding systems as per company norms</p>
	<b>Oral Communication (Listening and Speaking skills)</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA8. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SA9. Respond appropriately to any queries</p> <p>SA10. Communicate with supervisor</p> <p>SA11. Communicate with upstream and downstream teams</p> <p>SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme)</p>
	<b>Integrity</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA13. Practice honesty with respect to company property and time</p> <p>SA14. Communicate with people in a form and manner and using language that is open and respectful</p> <p>SA15. Resolve any difficulties in relationships with colleagues, or get help from an appropriate person, in a way that preserves goodwill and trust</p>
	<b>Motivation</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA16. Take responsibility for completing one's own work assignment</p> <p>SA17. Take initiative to enhance/learn skills in one's area of work</p> <p>SA18. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning.</p> <p>SA19. Is open to new ways of doing things</p> <p>SA20. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.</p>
	<b>Reliability</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA21. Avoid absenteeism</p> <p>SA22. Act objectively, rather than impulsively or emotionally when faced with difficult/stressful or emotional situations</p> <p>SA23. Work in disciplined factory environment</p> <p>SA24. Be punctual</p>

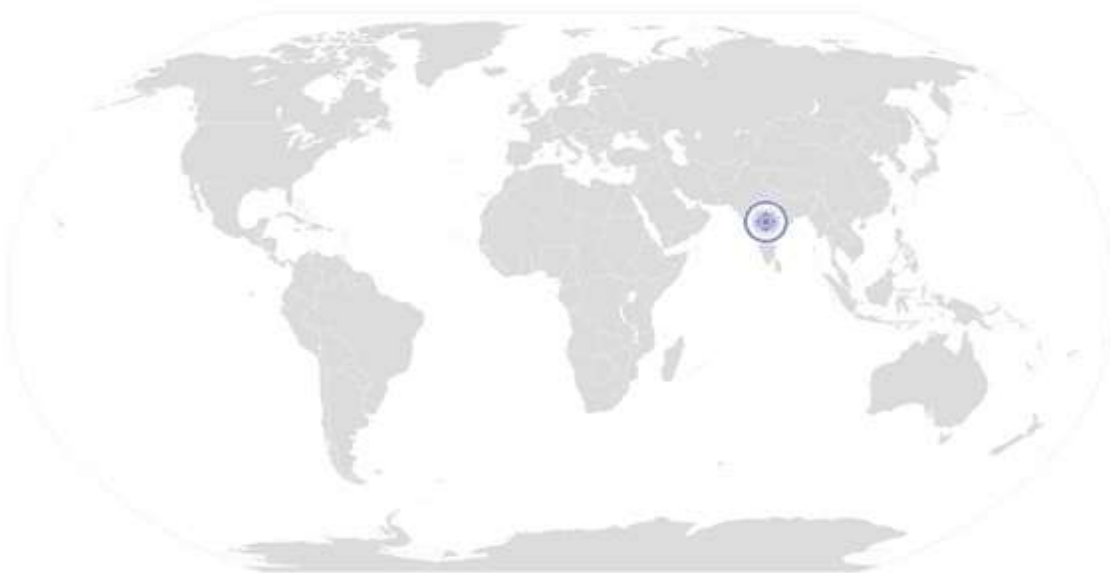


**Perform Post-Tyre Building Activities**

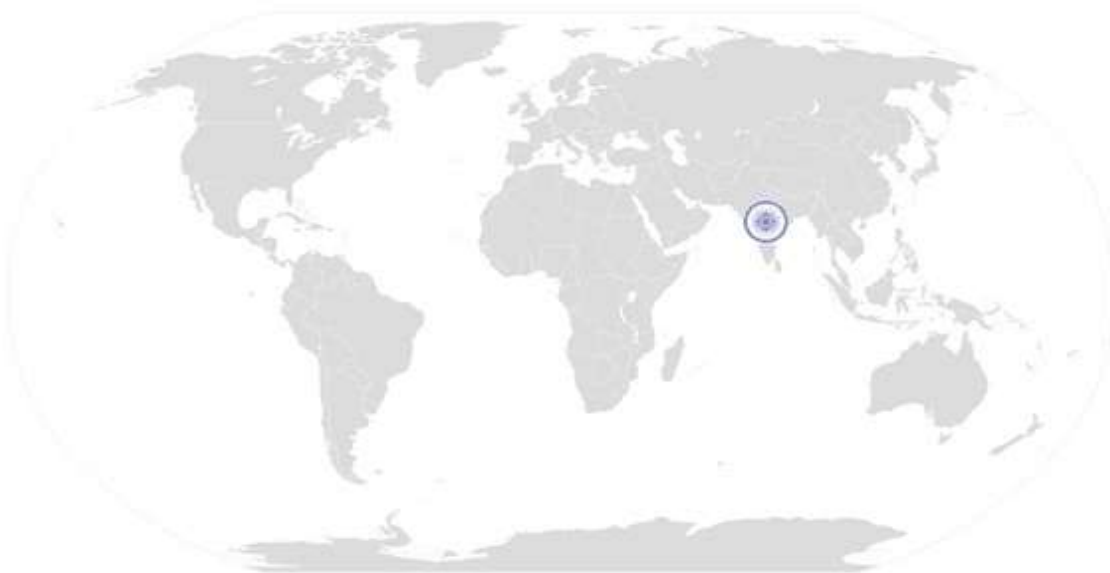
<b>B. Professional Skills</b>	<b>Material and Equipment Handling</b>
	The user/individual on the job needs to know and understand how to:
	SB1. Handle green tyre and repair equipments. SB2. Handle components used in tyre building. SB3. Handling of various types of material handling equipment like chain hoists , trolleys SB4. 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.
	<b>Analytical Thinking</b>
	The user/individual on the job needs to know and understand how to:
	SB5. Diagnose common problems in the prepared product based on visual inspection and experience. SB6. Carry out repair work related to building faults for green tyres SB7. Suggest improvements(if any) in process based on experience



<b>NOS Code</b>	RSC / N 0521		
<b>Credits(NSQF)</b>	TBD	<b>Version number</b>	1.0
<b>Industry</b>	Rubber Manufacturing	<b>Drafted on</b>	02/12/14
<b>Industry Sub-sector</b>	Tyre	<b>Last reviewed on</b>	02/12/14
<b>Occupation</b>	Tyre Building	<b>Next review date</b>	02/12/15



# National Occupational Standard



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## Overview

This unit is about carrying out housekeeping

**RSC / N 5001**
**Carry Out Housekeeping Activities**

National Occupational Standard

<b>Unit Code</b>	<b>RSC / N 5001</b>
<b>Unit Title (Task)</b>	<b>To carry out housekeeping</b>
<b>Description</b>	This unit is about carrying out housekeeping activities
<b>Scope</b>	This unit/task covers the following: <ul style="list-style-type: none"> <li>• Preparing for housekeeping activities</li> <li>• Carry out housekeeping activities</li> <li>• Post housekeeping activities</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Pre housekeeping activities</b>	To be competent, the user/individual on the job must be able to: PC1. Inspect the area while taking into account various surfaces PC2. Identify the material requirements for cleaning the areas inspected, by considering risk, time, efficiency and type of stain PC3. Ensure that the cleaning equipment is in proper working condition PC4. Select the suitable alternatives for cleaning the areas in case the appropriate equipment and materials are not available and inform the appropriate person PC5. Plan the sequence for cleaning the area to avoid re-soiling clean areas and surfaces PC6. Inform the affected people about the cleaning activity PC7. Display the appropriate signage for the work being conducted PC8. Ensure that there is adequate ventilation for the work being carried out PC9. Wear the personal protective equipment required for the cleaning method and materials being used
<b>Operations</b>	PC10. Use the correct cleaning method for the work area, type of soiling and surface PC11. Carry out cleaning activity without disturbing others PC12. Deal with accidental damage, if any, caused while carrying out the work PC13. Report to the appropriate person any difficulties in carrying out your work PC14. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill
<b>Post housekeeping activities</b>	PC15. Ensure that there is no oily substance on the floor to avoid slippage PC16. Ensure that no scrap material is lying around PC17. Maintain and store housekeeping equipment and supplies

### Carry Out Housekeeping Activities

	<p>PC18. Follow workplace procedures to deal with any accidental damage caused during the cleaning process</p> <p>PC19. Ensure that, on completion of the work, the area is left clean and dry and meets requirements</p> <p>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</p> <p>PC21. Dispose the waste garnered from the activity in an appropriate manner</p> <p>PC22. Dispose of used and un-used solutions according to manufacturer's instructions, and clean the equipment thoroughly</p>
<p><b>General</b></p>	<p>PC23. Maintain schedules and records for housekeeping duty</p> <p>PC24. Replenish any necessary supplies or consumables</p>
<p><b>Knowledge and Understanding (K)</b></p>	
<p><b>B. Technical Knowledge</b></p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. The levels of hygiene required by workplace and why it is important to maintain them during your work</p> <p>KB2. How to inspect a work area to decide what cleaning it needs</p> <p>KB3. Methods and materials that used for cleaning variety of surfaces</p> <p>KB4. The types of cleansing agents that are not to be mixed together</p> <p>KB5. The correct method for cleaning equipment and/or machinery used during your work</p> <p>KB6. The importance of personal protective equipment</p> <p>KB7. Appropriate personal protective equipment for the work area, cleaning equipment, tools, materials and chemicals used</p> <p>KB8. The correct sequence for cleaning the work area</p> <p>KB9. The time taken by the treatment to work</p> <p>KB10. The importance of following manufacturer's instructions on cleaning agents</p> <p>KB11. The most appropriate place to carry out test cleans and why this should be done before applying treatments</p> <p>KB12. The importance of applying treatments evenly and the effect of not doing this</p> <p>KB13. Process of cleaning the surfaces without causing injury or damage</p> <p>KB14. The method to check the treated surface and equipment on completion of cleaning</p> <p>KB15. Procedures for reporting any unidentified soiling</p> <p>KB16. Procedures for disposing off waste</p> <p>KB17. Procedures for disposing off or storing personal protective equipment</p> <p>KB18. Escalation procedures for soils or stains that could not be removed</p>

Skills (S)	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The user/ individual on the job needs to know and understand how to: SA1. Construct simple sentences and express ideas clearly through written communication SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company SA3. Write simple letters, mails, etc SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes
	<b>Reading and Understanding Skills</b>
	The user/individual on the job needs to know and understand how to: SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. Understand the various coding systems as per company norms
	<b>Oral Communication (Listening and Speaking skills)</b>
	The user/individual on the job needs to know and understand how to: SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme)
	<b>Integrity</b>
	The user/individual on the job needs to know and understand how to: SA13. Practice honesty with respect to company property and time SA14. Communicate with people in a form and manner and using language that is open and respectful SA15. Resolve any difficulties in relationships with colleagues, or get help from an appropriate person, in a way that preserves goodwill and trust
	<b>Motivation</b>
	The user/individual on the job needs to know and understand how to: SA16. Take responsibility for completing one's own work assignment SA17. Take initiative to enhance/learn skills in one's area of work SA18. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning.

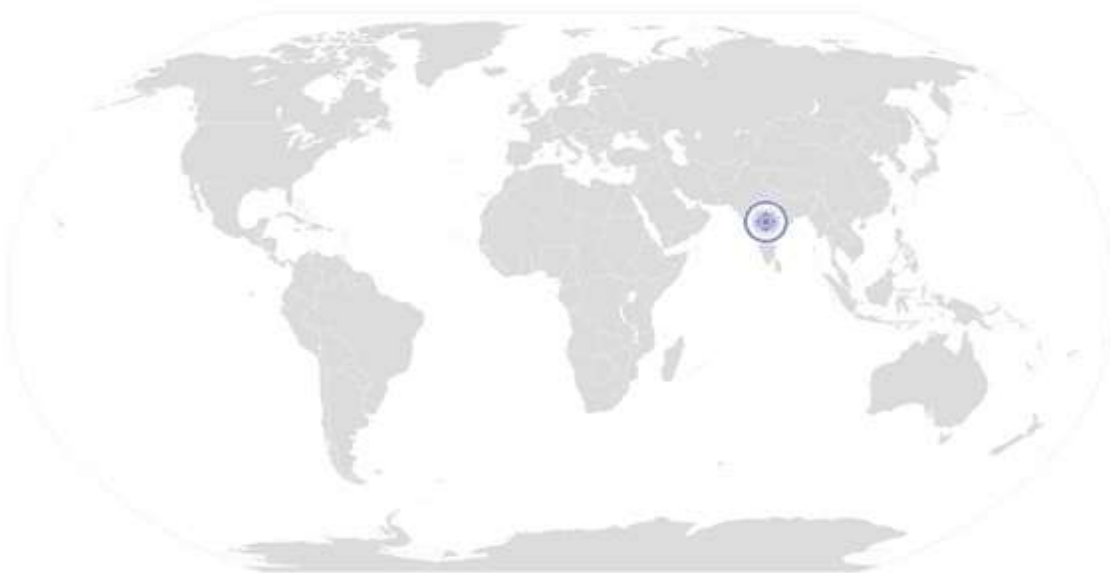


**Carry Out Housekeeping Activities**

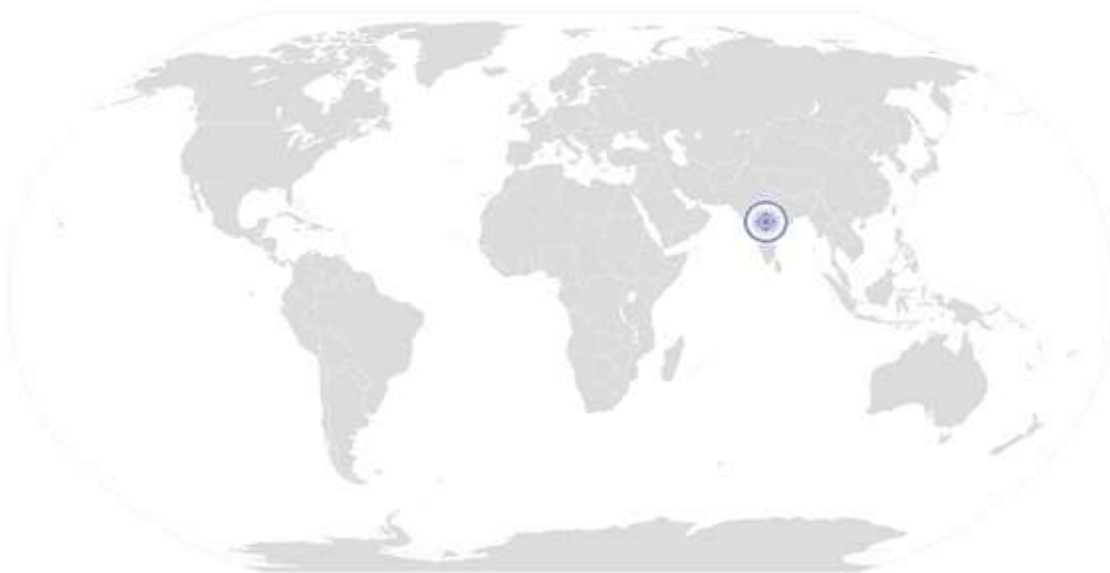
	SA19. Is open to new ways of doing things SA20. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.
	<b>Reliability</b>
	The user/individual on the job needs to know and understand how to: SA21. Avoid absenteeism SA22. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA23. Work in disciplined factory environment SA24. Be punctual



<b>NOS Code</b>	<b>RSC / N 5001</b>		
<b>Credits(NSQF)</b>	<b>TBD</b>	<b>Version number</b>	<b>1.0</b>
<b>Industry</b>	<b>Rubber Manufacturing</b>	<b>Drafted on</b>	<b>04/06/14</b>
<b>Industry Sub-sector</b>	<b>Tyre</b>	<b>Last reviewed on</b>	<b>14/06/14</b>
<b>Occupation</b>	<b>Tyre Building</b>	<b>Next review date</b>	<b>14/06/15</b>



# National Occupational Standard



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## Overview

This unit is about reporting and documentation

<b>Unit Code</b>	<b>RSC / N 5002</b>
<b>Unit Title (Task)</b>	<b>To carry out reporting and documentation</b>
<b>Description</b>	This unit is about carrying out reporting and documentation
<b>Scope</b>	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> <li>• Reporting of data/problem/incidents etc</li> <li>• Documentation</li> <li>• Information Security</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Reporting</b>	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Report data/problems/incidents as applicable in a timely manner</p> <p>PC2. Report to the appropriate authority as laid down by the company</p> <p>PC3. Follow reporting procedures as prescribed by the company</p>
<b>Recording and Documentation</b>	<p>PC4. Identify documentation to be completed relating to one's role</p> <p>PC5. Record details accurately an appropriate format</p> <p>PC6. Complete all documentation within stipulated time according to company procedure</p> <p>PC7. Ensure that the final document meets with the requirements of the persons who requested it or make any amendments accordingly</p> <p>PC8. Make sure documents are available to all appropriate authorities to inspect</p>
<b>Information Security</b>	<p>PC9. Respond to requests for information in an appropriate manner whilst following organizational procedures</p> <p>PC10. Inform the appropriate authority of requests for information received</p>
<b>Knowledge and Understanding (K)</b>	
<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Different methods of recording information</p> <p>KB2. Various documents that need to be maintained</p> <p>KB3. Company procedure for filling/maintaining up the documents</p> <p>KB4. Procedures for reporting to the appropriate authority</p> <p>KB5. Procedures for recording damage, breakages etc</p> <p>KB6. Reporting incidents where standard operating procedures are not followed</p> <p>KB7. The importance of complete and accurate documentation</p> <p>KB8. How to maintain complete documentation accurately and within agreed timescales</p> <p>KB9. The importance of ensuring that the documents are correct</p>

### To Carry Out Reporting And Documentation

	<p>KB10. The actions to be taken if the documents are not correct</p> <p>KB11. The importance of maintaining the security and confidentiality of recorded information</p> <p>KB12. Procedures to maintain confidentiality of information</p> <p>KB13. The appropriate method for responding to requests for information</p> <p>KB14. The reporting procedures to followed before disclosing information to any outside party</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Construct simple sentences and express ideas clearly through written communication</p> <p>SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company</p> <p>SA3. Write simple letters, mails, etc</p> <p>SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes</p>
	<b>Reading and Understanding Skills</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc</p> <p>SA6. Read images, graphs, diagrams</p> <p>SA7. Understand the various coding systems as per company norms</p>
	<b>Oral Communication (Listening and Speaking skills)</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA8. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SA9. Respond appropriately to any queries</p> <p>SA10. Communicate with supervisor</p> <p>SA11. Communicate with upstream and downstream teams</p> <p>SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme)</p>
	<b>Integrity</b>
<p>The user/individual on the job needs to know and understand how to:</p> <p>SA13. Practice honesty with respect to company property and time</p> <p>SA14. Communicate with people in a form and manner and using language that is open and respectful</p> <p>SA15. Resolve any difficulties in relationships with colleagues, or get help from an appropriate person, in a way that preserves goodwill and trust</p>	

**To Carry Out Reporting And Documentation**

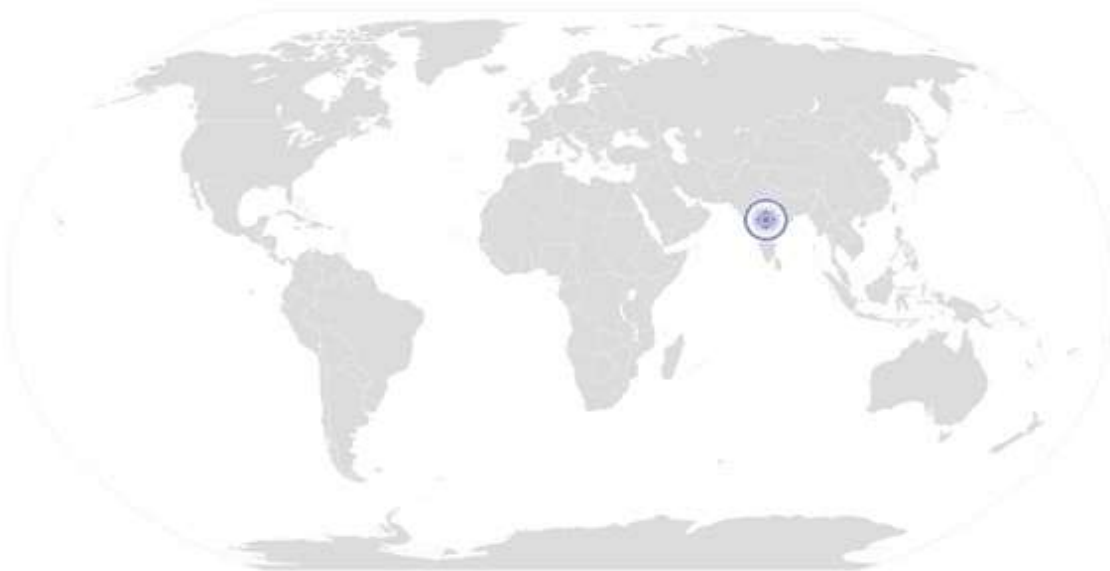
	<b>Motivation</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA16. Take responsibility for completing one’s own work assignment</p> <p>SA17. Take initiative to enhance/learn skills in ones’s area of work</p> <p>SA18. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one’s learning.</p> <p>SA19. Is open to new ways of doing things</p> <p>SA20. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.</p>
	<b>Reliability</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA21. Avoid absenteeism</p> <p>SA22. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations</p> <p>SA23. Work in disciplined factory environment</p> <p>SA24. Be punctual</p>



## NOS Version Control

**To Carry Out Reporting And Documentation**

<b>NOS Code</b>	<b>RSC / N 5002</b>		
<b>Credits(NSQF)</b>	<b>TBD</b>	<b>Version number</b>	<b>1.0</b>
<b>Industry</b>	<b>Rubber Manufacturing</b>	<b>Drafted on</b>	<b>04/06/14</b>
<b>Industry Sub-sector</b>	<b>Tyre</b>	<b>Last reviewed on</b>	<b>14/06/14</b>
<b>Occupation</b>	<b>Tyre Building</b>	<b>Next review date</b>	<b>14/06/15</b>



[Back to QP](#)



# National Occupational Standard



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## Overview

This unit is about carrying out quality checks

<b>Unit Code</b>	<b>RSC / N 5003</b>
<b>Unit Title (Task)</b>	<b>To carry out quality checks</b>
<b>Description</b>	This unit is about carrying out quality control activities
<b>Scope</b>	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> <li>• Carrying out quality checks to identify problems</li> <li>• Take corrective actions</li> <li>• Reporting the results</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Inspection</b>	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Ensure that total range of checks are regularly and consistently performed</p> <p>PC2. Use appropriate measuring instruments, equipment, tools, accessories etc ,as required</p>
<b>Analysis</b>	<p>PC3. Identify non-conformities to quality assurance standards</p> <p>PC4. Identify potential causes of non-conformities to quality assurance standards</p> <p>PC5. Identify impact on final product due to non-conformance to company standards</p> <p>PC6. Evaluating the need for action to ensure that problems do not recur</p> <p>PC7. Suggest corrective action to address problem</p> <p>PC8. Review effectiveness of corrective action</p>
<b>Reporting</b>	<p>PC9. Interpret the results of the quality check correctly</p> <p>PC10. Take up results of the findings with QC in charge/appropriate authority.</p> <p>PC11. Take up the results of the findings within stipulated time</p> <p>PC12. Record of results of action taken</p> <p>PC13. Record adjustments not covered by established procedures for future reference</p> <p>PC14. Review effectiveness of action taken</p> <p>PC15. Follow reporting procedures where the cause of defect cannot be identified</p>
<b>Knowledge and Understanding (K)</b>	
<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. The importance of quality control procedures</p> <p>KB2. Relevance and importance of activities and how they contribute to the</p>

### To Carry Out Quality Checks

	<p>achievement of the quality objectives,</p> <p>KB3. Proper procedure for selecting the material/product and performing quality checks without affecting the material</p> <p>KB4. Availability of work instructions, as necessary,</p> <p>KB5. Characteristics of the product/material</p> <p>KB6. Use of suitable equipment</p> <p>KB7. Availability and use of monitoring and measuring devices,</p> <p>KB8. Requirements of records</p> <p>KB9. Importance of maintaining accurate up-to-date records</p> <p>KB10. The need to report within the stipulated time</p> <p>KB11. Implications of inaccurate measuring and testing instruments and equipment</p> <p>KB12. The cost of non-conformance to quality standards</p> <p>KB13. Implications (impact on internal/external customers) of defective products, materials or components</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Construct simple sentences and express ideas clearly through written communication</p> <p>SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company</p> <p>SA3. Write simple letters, mails, etc</p> <p>SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as estimation and approximation, for practical purposes</p>
	<b>Reading and Understanding Skills</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc</p> <p>SA6. Read images, graphs, diagrams</p> <p>SA7. Understand the various coding systems as per company norms</p>
	<b>Oral Communication (Listening and Speaking skills)</b>
<p>The user/individual on the job needs to know and understand how to:</p> <p>SA8. Express statements, opinions or information clearly so that others can hear and understand</p> <p>SA9. Respond appropriately to any queries</p> <p>SA10. Communicate with supervisor</p> <p>SA11. Communicate with upstream and downstream teams</p> <p>SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme)</p>	

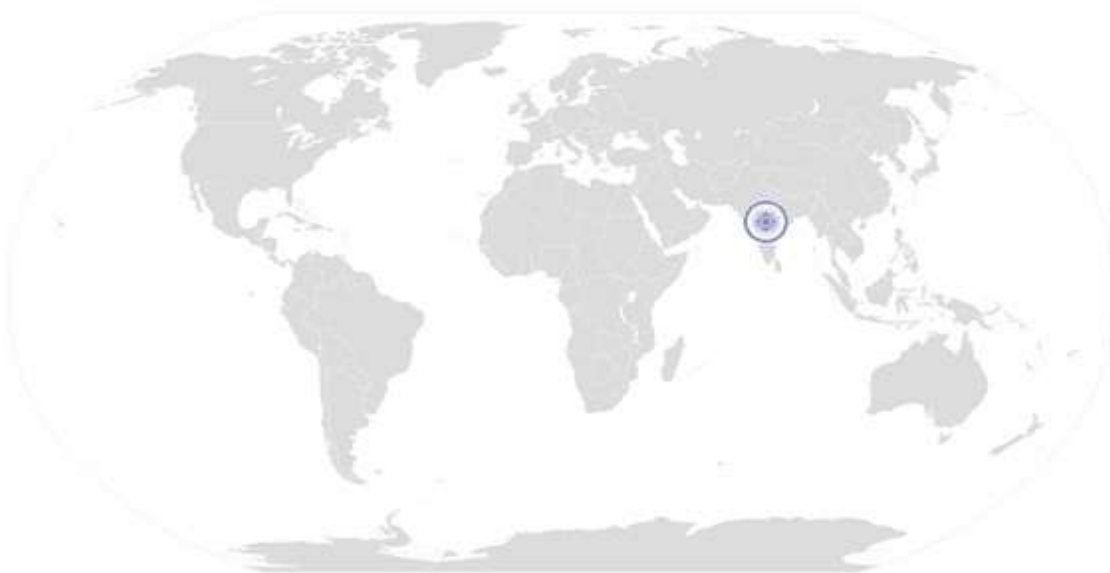
**To Carry Out Quality Checks**

	<b>Integrity</b>
	The user/individual on the job needs to know and understand how to: SA13. Practice honesty with respect to company property and time SA14. Communicate with people in a form and manner and using language that is open and respectful SA15. Resolve any difficulties in relationships with colleagues , or get help from an appropriate person, in a way that preserves goodwill and trust
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	<b>Reliability</b>
The user/individual on the job needs to know and understand how to: SA21. Avoid absenteeism SA22. Act objectively , rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA23. Work in disciplined factory environment SA24. Be punctual	

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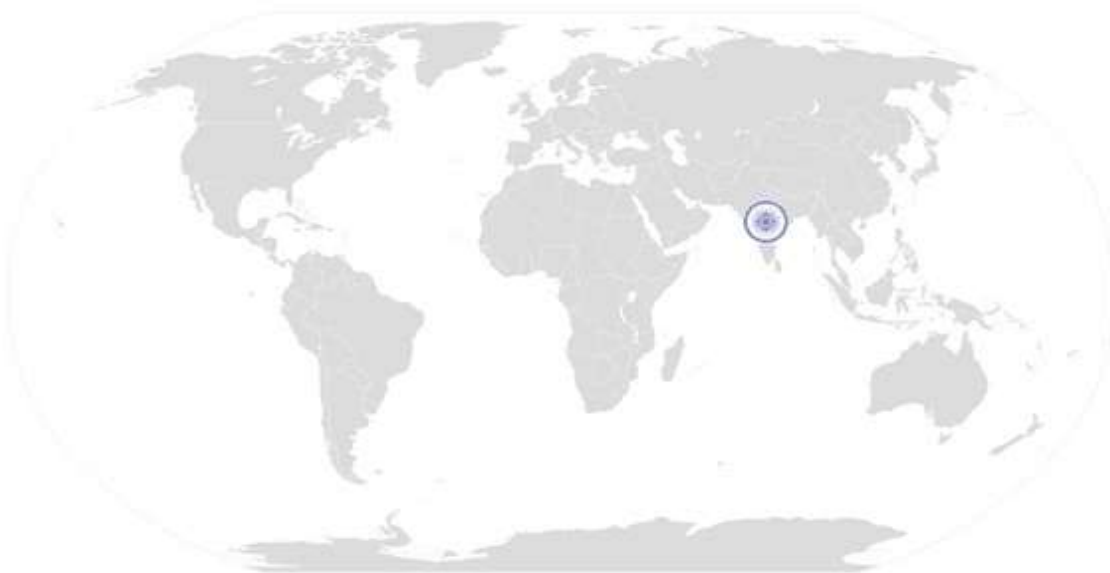
### To Carry Out Quality Checks

<b>NOS Code</b>	<b>RSC / N 5003</b>		
<b>Credits(NSQF)</b>	<b>TBD</b>	<b>Version number</b>	<b>1.0</b>
<b>Industry</b>	<b>Rubber Manufacturing</b>	<b>Drafted on</b>	<b>04/06/14</b>
<b>Industry Sub-sector</b>	<b>Tyre and NonTyre</b>	<b>Last reviewed on</b>	<b>14/06/14</b>
<b>Occupation</b>	<b>Tyre Building</b>	<b>Next review date</b>	<b>14/06/15</b>



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# National Occupational Standard



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## Overview

This unit is about problem identification and escalation

## To Carry Out Problem Identification And Escalation

<b>Unit Code</b>	RSC / N 5004
<b>Unit Title (Task)</b>	To carry out problem identification and escalation
<b>Description</b>	This unit is about problem identification and escalation
<b>Scope</b>	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> <li>• Identify problems across: <ul style="list-style-type: none"> <li>- Raw materials</li> <li>- Compounds</li> <li>- Product</li> <li>- Equipment</li> <li>- Others</li> </ul> </li> <li>• Identify solutions to problems</li> <li>• Take corrective action</li> <li>• Escalation of unresolved identified problems</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Problem Identification</b>	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Identify defects/indicators of problems</p> <p>PC2. Identify any wrong practices that may lead to problems</p> <p>PC3. Identify practices that may impact the final product quality</p> <p>PC4. Identify if the problem has occurred before</p> <p>PC5. Identify other operations that might be impacted by the problem</p> <p>PC6. Ensure that no delays are caused as a result of failure to escalate problems</p>
<b>Necessary Action</b>	<p>PC7. Take appropriate materials and sample, conduct tests and evaluate results to establish reasons to confirm suspected reasons for non-conformance (where required)</p> <p>PC8. Consider possible reasons for identification of problems</p> <p>PC9. Consider applicable corrections and formulate corrective action</p> <p>PC10. Formulate action in a timely manner</p> <p>PC11. Communicate problem/remedial action to appropriate parties</p> <p>PC12. Take corrective action in a timely manner</p> <p>PC13. Take corrective action for problems identified according to the company procedures</p> <p>PC14. Report/document problem and corrective action in an appropriate manner</p> <p>PC15. Monitor corrective action</p> <p>PC16. Evaluate implementation of corrective action taken to determine if the</p>



**To Carry Out Problem Identification And Escalation**

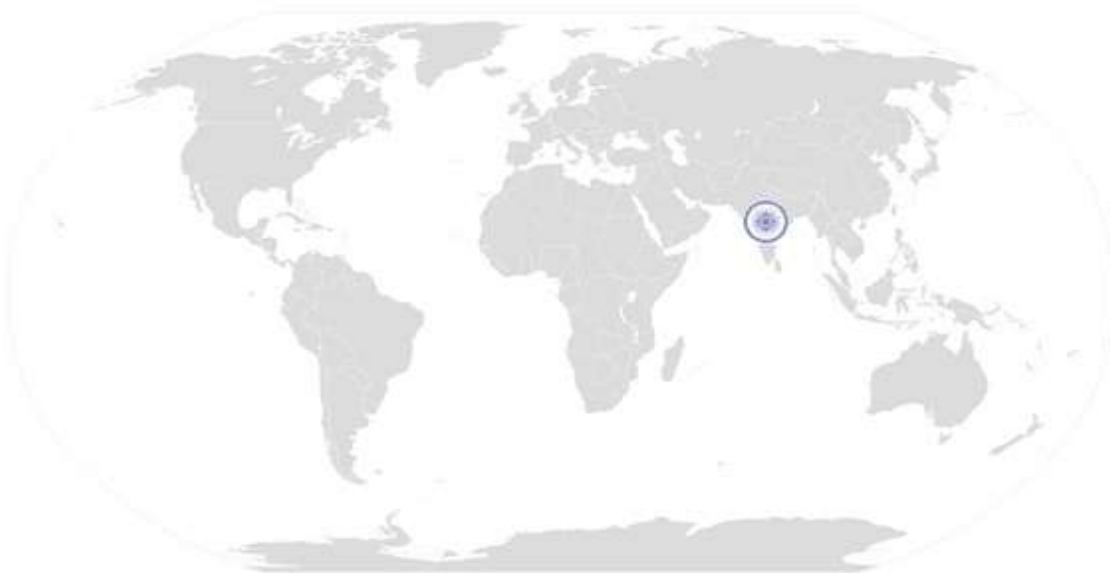
	<p>problem has been resolved</p> <p>PC17. Ensure that corrective action selected is viable and practical</p> <p>PC18. Ensure that correct solution is identified to an identified problem</p> <p>PC19. Take corrective action for problems identified according to the company procedures</p> <p>PC20. Ensure that no delays are caused as a result of failure to take necessary action</p>
<p><b>Problem Escalation</b></p>	<p>PC21. Escalate problem as per laid down escalation matrix</p> <p>PC22. Escalate the problem within stipulated time</p> <p>PC23. Escalate the problem in an appropriate manner</p> <p>PC24. Ensure that no delays are caused as a result of failure to escalate problems</p>
<p><b>Knowledge and Understanding (K)</b></p>	
<p><b>B. Technical Knowledge</b></p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Indicators of problems</p> <p>KB2. The working of the equipment and accessories( if applicable)</p> <p>KB3. The impact of operations on the user and equipment( if applicable)</p> <p>KB4. The impact of operations on the final product ( if applicable)</p> <p>KB5. The effect of not rectifying the problems identified</p> <p>KB6. The reason for the occurrence of previous problems</p> <p>KB7. Measures and steps that have been taken to address the previous problems</p> <p>KB8. Possible solutions for various problems</p> <p>KB9. The correct method for carrying out corrective actions outlined for each problem</p> <p>KB10. The impact of not carrying out the corrective actions</p> <p>KB11. The documentation procedure for recording such problems, as per company norms</p> <p>KB12. The escalation matrix for reporting problems</p> <p>KB13. Escalation matrix for reporting unresolved problems</p> <p>KB14. The time frame within which in which each problem needs to be escalated</p> <p>KB15. Manner in which each problem needs to be escalated</p>
<p><b>Skills (S)</b></p>	
<p><b>A. Core Skills/ Generic Skills</b></p>	<p><b>Writing Skills</b></p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Construct simple sentences and express ideas clearly through written communication</p> <p>SA2. Fill up appropriate technical forms, process charts, activity logs in required format of the company</p> <p>SA3. Write simple letters, mails, etc</p> <p>SA4. Perform functional mathematical operations, including apply basic mathematical principles, such as numbers and space, and techniques such as</p>

### To Carry Out Problem Identification And Escalation

	estimation and approximation, for practical purposes
	<b>Reading and Understanding Skills</b>
	The user/individual on the job needs to know and understand how to: SA5. Read and understand manuals, health and safety instructions, memos, reports, job cards etc SA6. Read images, graphs, diagrams SA7. Understand the various coding systems as per company norms
	<b>Oral Communication (Listening and Speaking skills)</b>
	The user/individual on the job needs to know and understand how to: SA8. Express statements, opinions or information clearly so that others can hear and understand SA9. Respond appropriately to any queries SA10. Communicate with supervisor SA11. Communicate with upstream and downstream teams SA12. Work in a team and other behavioral skills required to support the small group activities (Quality Circle, Cross Functional Team, Suggestion Scheme)
	<b>Integrity</b>
	The user/individual on the job needs to know and understand how to: SA13. Practice honesty with respect to company property and time SA14. Communicate with people in a form and manner and using language that is open and respectful SA15. Resolve any difficulties in relationships with colleagues, or get help from an appropriate person, in a way that preserves goodwill and trust
	<b>Motivation</b>
	The user/individual on the job needs to know and understand how to: SA16. Take responsibility for completing one's own work assignment SA17. Take initiative to enhance/learn skills in one's area of work SA18. The capacity to learn from experience in a range of settings and scenarios and the capacity to reflect on and analyse one's learning. SA19. Is open to new ways of doing things SA20. The capacity to envisage and articulate personal goals; to develop strategies and take action to achieve them.
	<b>Reliability</b>
	The user/individual on the job needs to know and understand how to: SA21. Avoid absenteeism SA22. Act objectively, rather than impulsively or emotionally when faced with difficult/stressful or emotional situations SA23. Work in disciplined factory environment SA24. Be punctual

## NOS Version Control

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**CRITERIA FOR ASSESSMENT OF TRAINEES**

**Job Role** Tyre Building Operator : Off the Road Tyre

**Qualification Pack** RSC/ Q 0504

**Sector Skill Council** Rubber Skill Development Council

**Guidelines for Assessment**

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5. To pass the Qualification Pack , every trainee should score a minimum of 70% in every NOS
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

<b>Assessment Strategy</b>			<b>Marks Allocation</b>		
<b>NOS</b>	<b>Elements</b>	<b>Performance Criteria</b>	<b>Total</b>	<b>Theory</b>	<b>Practical</b>
RSC / N 0519 Prepare building machine and collect	Equipment readiness	PC1. Ensure that the tools and equipments required for tyre building are clean and ready to use.	2	0	2
		PC2. Follow machine and equipment preparation process as per SOP	14	9	5
		PC3. Check if the stitchers, cross rollers are functional and have adequate specified pressures as required by specification	12	8	4
		PC4. Make the correct building drum available	4	0	4

components		PC5. Measure the drum width and set it as per the required specification	3	0	3	
		PC6. Ensure that no delays are caused as a result of improper preparation and failure to identify problems.	4	4	0	
	Raw material appropriateness		PC7. Ensure the availability of all the components – Bands, bead bundles, breaker, tread, sidewall, chafer etc	3	0	3
			PC8. Check tags , markings , date and shift to ensure correctness of codes and the use of only within age components made	12	8	4
			PC9. Ensure that the component dimensions are as per the specification	11	8	3
			PC10. Check if all the bands are marked as required for facilitating assembling in the sequentially	7	3	4
			PC11. Check if the beads are properly identified and are of correct numbers and turns	7	3	4
			PC12. Check if bead bundles are fully wrapped with bead wrap have apex and wrapped with flipper fabric	2	0	2
			PC13. Ensure the use of certified tools and equipments for tyre building	3	3	0
	Health & Safety		PC14. Avoid wearing loose shirt	2	2	0
			PC15. Adhere to all safety norms (such as wearing protective gloves,mask and safety shoes).	8	6	2
			PC16. Avoid spillage and in case of spillage occur , follow safety measures as laid down by safety department	3	3	0
			PC17. 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 / N 0520 Build Off the Road Green 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 drum paint , staeric acid blocks , solvent for fresheningand stripping are available			2	0	2	
Operation		PC4. Keep 2/3 beads ( as per requirement) on the inboard side of the drum spindle depending upon the construction 2 bead or 3 bead	2	0	2	
		PC5. Apply drum paint on the flange area of the drum to facilitate bead	6	0	6	

	application and turn up			
	PC6. Apply first band on the drum and ensure it is properly centered	3	0	3
	PC7. Use stearic acid blocks on the bands to facilitate band movement on the drum while building the tyre	7	5	2
	PC8. Carry out proper and uniform stitching of bands and other components	4	0	4
	PC9. Place first bead bundle on either side of the drum flange passing over the first band ; turn up band to envelope the beads firmly at the flange area	2	0	2
	PC10. Apply second band and second bead set on top of first band and enclose the beads again – Use stearic acid blocks to facilitate the sliding and centering of second and subsequent band on the building drum with the band	2	0	2
	PC11. Repeat the operation using the third band if it is 3 bead construction	2	0	2
	PC12. Apply outer band and ensure it is turned down to the bead toe	2	0	2
	PC13. Apply breakers on the drum ensuring proper centering in case outer band is without breakers	2	0	2
	PC14. Apply the tread; chafer on the bead area and side walls on the sides	2	0	2
	PC15. Use stearic acid blocks on the bands to facilitate band movement on the drum while building the tyre	7	5	2
	PC16. Apply stitchers with appropriate stitching pressures for proper and uniform stitching of bands and other components	7	4	3
	PC17. Ensure that the turn up and turn down are free of wrinkles and of any air trapment	7	4	3
	PC18. Collapse the drum to release the tyre from the drum after tyre building is over	2	0	2
	PC19. Use small quantity of solvent to facilitate tyre release from drum	5	5	0
	PC20. Inspect the green tyre for blemishes and airpockets – Awl vent the trapped air, if any	14	8	6
Health & Safety	PC21. Maintain safe distance from rotating drum	2	0	2
	PC22. Avoid wearing loose shirt	2	2	0
	PC23. Minimal usage of solvent	2	0	2

		PC24. Adhere to all safety norms (such as wearing protective gloves, masks and earplugs)	6	3	3
		PC25. 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 / N 0521 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 /repair wrinkles and awl vent the airpockets	13	8	5
		PC4. Do patch repair if inner liner is damaged or with minor holes	7	2	5
		PC5. Send the tyre to painting area in proper designated storage trucks	2	2	0
		PC6. Maintain the equipments required for tyre building	9	9	0
		PC7. Report any repair and maintenance requirement to the Supervisor	3	3	0
		PC8. Send the unused components to the designated place	4	4	0
		PC9. Maintain the special equipments required for each tyre and size properly in the designated area	11	7	4
	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.	9	5	4
		PC12. Identify the tyre builder by placing builder number sticker on the bead toe area of the tyre ( or as per SOP)	10	5	5
	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	Pre housekeeping	PC1. Inspect the area while taking into account various surfaces	3	3	0



To Carry Out Housekeeping	activities	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 are not available and inform the appropriate person	3	3	0
		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 Documentat ion	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
	Information Security	PC8. Make sure documents are available to all appropriate authorities to inspect	6	4	2
		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
			100	60	40
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 selected is viable and practical	2	2	0
		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