







Model Curriculum

Maintenance of Machinery - Helper (Plastic)

SECTOR: RUBBER

SUB-SECTOR: PLASTICS PROCESSING

OCCUPATION: MACHINE MAINTENANCE

REF ID: RSC/Q4810 (CPC/Q3001), V 1.0

NSQF LEVEL: 1















CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

RUBBER SKILL DEVELOPMENT COUNCIL

for the

MODEL CURRICULUM

Complying to National Occupational Standards of

Job Role/ Qualification Pack: 'Maintenance of Machinery – Helper (Plastic)'

QP No. 'RSC/Q4810 (CPC/Q3001), V1.0, NSQF Level 1'

Date of Issuance: December 26th, 2016

Valid up to: December 25th, 2021

 $*\ \textit{Valid up to the next review date of the Qualification Pack}$

Authorised Signatory (Rubber Skill Development Council)









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Maintenance of Machinery - Helper (Plastic)

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a "<u>Maintenance of Machinery - Helper (Plastic)</u>", in the "<u>Rubber Skill Development Council</u>" Sector/Industry and aims at building the following key competencies amongst the learners.

Program Name	Maintenance of Machinery - Helper (Plastic)			
Qualification Pack Name and Reference ID	RSC/Q4810 (CPC/Q3	3001), V 1.0		
Version No.	1.0	1.0 Version Update Date 29/05/2019		
Pre-requisites to Training	Able to read and write			
Training Outcomes	 Receive the tools Assist for smooth Carry out cleaning Follow fire safety procedures Display appropria others Display appropria 	s programme, participant and tackles from stores/de operation at site/department of equipment and work significant procedures, emergencies, the communication with suppose the behavior and etiquette assafety procedures.	epartment ents ite rescue, and first aid periors, peers and	









This course encompasses $\underline{4}$ out of $\underline{4}$ National Occupational Standards (NOS) of " $\underline{\text{Maintenance of Machinery}}$ " Qualification Pack issued by " $\underline{\text{Rubber Skill Development Council}}$ ".

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1.	Introduction to the job role Theory Duration (hh:mm) 05:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code Bridge Module	 List the major milestones in the developmental history of plastic State the basic industrial scenario of plastics and its prospects Identify the types of plastic List major industrial associations linked to maintenance of machinery - helper (plastic) Describe the roles and responsibilities of 'Machinery – Helper (plastic)'. 	Classroom equipment: computer, charts, black / white board and duster.
2.	Receive tools and tackles from store/department Theory Duration (hh:mm) 05:00 Practical Duration (hh:mm) 20:00 Corresponding NOS Code RSC/N4832 (CPC/N3001)	 List the tools, tackles and equipment necessary for the job Identify the appropriate tools, tackles, equipment and necessary hardware required for the job Check if the required tools, tackles, equipment and necessary hardware are in proper working condition Check if the required tools, tackles, equipment, and necessary hardware match the required specification Coordinate within department/ store to obtain the identified tools and tackles Carry the tools, tackles, equipment and hardware to the job site without causing damage Inspect work site and extend necessary help for executing the job 	Measuring equipment: Steel ruler – 15cm (with metric graduations), micrometer 0 – 25mm, Vernier caliper, outside – inside spring caliper, radius gauge, feeler gauge, height gauge, thread gauge, thickness gauge, steel measuring tape, weighing balance (1 no.) Hand tools: Hammer, spanners, screw driver set with multiple heads, allen key hexagonal set (inches and millimetre), twist drills bit, file triangular, hand hacksaw with adjustable frame, spanner set double side, adjustable spanner, crimping tools, calculator, wrenches, pliers, cutters, striking tools, struck or hammered tools, vises, clamps, snips, saws, drills and knives Personal protective equipment: Safety goggles, rubber gloves, asbestos gloves, fire extinguisher, apron, helmet, first aid box with medicines









3.	3. Assist in smooth operation at site/departments Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 25:00 Corresponding NOS Code RSC/N4833 (CPC/N3002)	 Explain the significance of keeping the worksite clear and clean before and after the job Describe the process of dismantling, assembling and maintenance activities State the significance of keeping the work place properly illuminated Keep the worksite clear from all obstructions, and clean before starting the job Identify the different types of tools, tackles and hardware required for the particular job Carry out the checking of the tools, tackles and hardware required for the job are fit and ready for use 	Other equipment: Flat file second - cut and smooth, half round file second – cut and smooth, needle file – rough and smooth Hand tools: Hammer, screw driver set with multiple heads, allen key hexagonal ,twist drills bit, file triangular, hacksaw adjustable, spanner set double side, adjustable spanner, crimping tools, calculator, wrenches, pliers, cutters, striking tools, struck or hammered tools, vises, clamps, snips, saws, drills and knives Measuring equipment: Steel ruler – 15cm (with metric graduations), micrometer 0 – 25mm,
	Code RSC/N4833	tools, tackles and hardware required for the particular job Carry out the checking of the tools, tackles and hardware required for the job are fit and ready for use Extend necessary help for smooth and timely completion of the job Keep the work place properly illuminated Clean the equipment free of dust, oil, grease, etc. Demonstrate the steps involved in dismantling, assembling Carry out oiling and greasing of the parts of the equipment post completion of the job Assist the welder, gas cutter, fitter, electrician, rigger, technician, operator, scaffolder, etc. for various nature of	and knives Measuring equipment: Steel ruler – 15cm (with metric graduations), micrometer 0 – 25mm, Vernier caliper, ouside – inside spring caliper, radius gauge, feeler gauge, height gauge, thread gauge, thickness gauge, steel measuring tape, weighing balance (1 no.) Personal protective equipment: Safety goggles, rubber gloves, asbestos gloves, fire extinguisher, apron, helmet, first aid box with medicines
		 activities/jobs Assemble the tools, tackles and hardware post completion of the job 	Other equipment: Flat file second - cut and smooth, half round file second – cut and smooth, needle file – rough and smooth
4.	Clean the equipment at work site Theory Duration (hh:mm) 05:00	 Describe the significance of cleaning equipment before and after job completion Clean the tools and tackles before starting the job and after completion Clean the equipment before 	Personal protective equipment: Safety goggles, rubber gloves, asbestos gloves, fire extinguisher, apron, helmet, first aid box with medicines









Practical Duration (hh:mm) 25:00

Corresponding NOS Code

RSC/N4834 (CPC/N3003)

- dismantling/assembling completion
- Remove and carry back all the unused hardware, tools, tackles, scraps, materials, etc. (with proper tagging if required) post completion of the job, to the department/stores
- Keep the work place free from dust, oil, grease, scraps, etc. before starting the job
- Keep the work site free from all obstacles
- Clean the work site post job completion
- Practice the procedure of informing the supervisor on completion of the assigned job.

Cleaning equipment:

Different cleaning materials such as air blower, vacuum cleaner, soaps, cotton waste cloth, brooms, etc.

Hand tools: Hammer, screw driver set with multiple heads. allen key hexagonal ,twist drills bit, file triangular, hacksaw adjustable, spanner set double side, adjustable spanner, crimping tools, calculator, wrenches, pliers, cutters, striking tools, struck or hammered tools, vises, clamps, snips, saws, drills and knives

Measuring equipment:

Steel ruler - 15cm (with metric graduations), micrometer 0 – 25mm, Vernier caliper, outside inside spring caliper, radius gauge, feeler gauge, height gauge, thread gauge, thickness gauge, steel measuring tape, weighing balance (1 no.)

Other equipment: Flat file second - cut and smooth, half round file second - cut and smooth, needle file rough and smooth.

5. Fire safety procedures, rescue. and first - aid techniques

Theory Duration (hh:mm)

10:00

Practical Duration

(hh:mm) 25:00

Corresponding NOS Code

RSC/N4835

- Describe good housekeeping practices and its significance
- State the process to be followed in case of fire, accidents and other emergencies
- Explain the ways to prevent hazards
- Demonstrate the correct usage of appropriate fire extinguishers on different types of fires
- Demonstrate the different rescue techniques applied during fire
- Practice good housekeeping in order to prevent fire hazards
- Demonstrate the correct use of a

Classroom equipment:, computer, charts, black /

white board and duster

Measuring equipment:

Steel ruler - 15cm (with metric graduations), micrometer 0 – 25mm, Vernier caliper, ouside inside spring caliper, radius gauge, feeler gauge, height gauge, thread gauge, thickness gauge, steel measuring tape, weighing balance (1 no.)

Hand tools: Hammer,









	(CPC/N3004)	 fire extinguisher Demonstrate how to rescue a person from electrocution Administer appropriate first aid to victims as required, in case of bleeding, burns, choking, electric shock, poisoning, etc. Demonstrate the basic techniques of bandaging Demonstrate how to respond promptly and appropriately to an accident situation or medical emergency Practice and organize loss minimization during an accident Administer first aid to victims in case of a heart attack or cardiac arrest due to electric shock, before the arrival of emergency services in real or simulated cases Demonstrate artificial respiration and CPR Demonstrate participation in emergency procedures Assist in creating incident/accident report Demonstrate the correct method to move injured people and others during an emergency 	spanners, screw driver set with multiple heads, allen key hexagonal set (inches and millimetre), twist drills bit, file triangular, hand hacksaw with adjustable frame, spanner set double side, adjustable spanner, crimping tools, calculator, wrenches, pliers, cutters, striking tools, struck or hammered tools, vises, clamps, snips, saws, drills and knives Personal protective equipment: Safety goggles, rubber gloves, asbestos gloves, fire extinguisher, apron, helmet, first aid box with medicines
6.	Communication with superiors, peers and others Theory Duration (hh:mm) 05:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code RSC/N4835 (CPC/N3004)	 during an emergency. Discuss the significance of receiving and passing complete and accurate information Discuss the significance of receiving information and instructions accurately from the supervisor and fellow workers Practice passing on information to authorized persons accurately Practice passing on information in a timely manner Assist in providing information to others clearly 	Classroom equipment:, computer, charts, black / white board and duster
7.	Appropriate behavior and etiquette at work Theory Duration (hh:mm) 05:00 Practical Duration	 Demonstrate helpful behavior in performing tasks positively. Demonstrate consultation and assistance to maximize effectiveness and efficiency in carrying out tasks Demonstrate appropriate communication etiquette while working 	Classroom equipment:, computer, charts, black / white board and duster









8.	(hh:mm) 10:00 Corresponding NOS Code RSC/N4835 (CPC/N3004) Health and safety procedures Theory Duration (hh:mm) 05:00 Practical Duration (hh:mm) 25:00 Corresponding NOS Code RSC/N4835 (CPC/N3004)	 Demonstrate active listening skills while interacting with others Practice the use of appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism Escalate grievances and problems to supervisor. Explain the significance of work safety Demonstrate the use of protective clothing/equipment for specific tasks and work conditions List the names of the people and the who are responsible for health and safety in the workplace Identify the job-site, hazardous work and state possible causes of risk or accident in the workplace Carry out safe working practices while dealing with hazards State the methods of accident prevention in the work environment locate the general health and safety equipment in the workplace Industrial language to convey politeness, assertiveness, care and professionalism Escalate grievances and professionalism Classroom equipment:, computer, charts, black / white board and duster Steel ruler – 15cm (with metric graduations), micrometer 0 – 25mm, vernier caliper, ouside – inside spring caliper, radius gauge, feeler gauge, height gauge, thread gauge, thickness gauge, steel measuring tape, weighing balance (1 no.) Hand tools: Hammer, spanners, screw driver set 		
	Total Duration	 safety equipment in the workplace Inspect for faults, set up and safely use steps and ladders in general use Practice work safety in and around trenches, elevated places and confined areas Follow correct procedures in lifting heavy objects safely Practices at all times Identify the common hazard signs displayed in various areas Safety equipment in the workplace spanners, screw driver set with multiple heads, allen key hexagonal set (inches and millimetre), twist drills bit, file triangular, hand hacksaw with adjustable frame, spanner set double side, adjustable spanner, crimping tools, calculator, wrenches, pliers, cutters, striking tools, struck or hammered tools, vises, clamps, snips, saws, drills and knives Personal protective equipment: Safety goggles, rubber gloves, asbestos gloves, fire extinguisher, apron, helmet, first aid box with medicines 		
	Total Duration	Unique Equipment Required:1. Classroom equipment: Charts, black / white board and duster.		
	Theory Duration 50:00	2. Measuring equipment: Steel ruler – 15cm (with metric graduations), micrometer 0 – 25mm, Vernier caliper, ouside –		
	Practical Duration 150:00	inside spring caliper, radius gauge, feeler gauge, height gauge, thread gauge, thickness gauge, steel measuring tape, weighing balance (1 no.)		









3.	Hand tools: Hammer, spanners, screw driver set with multiple heads, allen key hexagonal set (inches and millimetre), twist drills bit, file triangular, hand hacksaw with adjustable frame, spanner set double side, adjustable spanner, crimping tools, calculator, wrenches, pliers, cutters, striking tools, struck or hammered tools, vises, clamps, snips, saws, drills and knives
4.	Personal protective equipment: Safety goggles, rubber gloves, asbestos gloves, fire extinguisher, apron, helmet, first aid box with medicines
5.	Other equipment: Flat file second - cut and smooth, half round file second – cut and smooth, needle file – rough and smooth
6.	Cleaning equipment: Different cleaning materials such as air

blower, vacuum cleaner, soaps, cotton waste cloth, brooms, etc.

Grand Total Course Duration: 200 Hours 0 Minutes

(This syllabus/ curriculum has been approved by **Rubber Skill Development Council**)









Trainer Prerequisites for Job role: "Maintenance of Machinery - Helper (Plastic)" mapped to Qualification Pack: "RSC/Q4810 (CPC/Q3001)" Version 1.0

Sr. No.	Area	Details
1	Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack "RSC/Q4810 (CPC/Q3001), V 1.0".
2	Personal Attributes	A Trainer should be free from socio-economic preferences and prejudice. He/ she should be safety conscious and proficient in handling and use security/ safety equipment. Besides being knowledgeable, he/ she should be energetic, motivating, innovative and good at communication. The trainer should be able to establish rapport with the trainees and employ innovative methods to impart instructions.
3	Minimum Educational Qualification	 Technical knowledge on various tools and tackles Identifying various work sites Reading and writing report 5S and safety practices
4a	Domain Certification	Certified for Job Role "Maintenance of Machinery - Helper (Plastic)" mapped to the Qualification Pack "RSC/Q4810 (CPC/Q3001), V 1.0" issued by RSDC. Minimum accepted score as per SSC guidelines is 80%.
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: " <u>Trainer</u> ", mapped to the Qualification Pack: " <u>MEP/Q2601</u> " with scoring of minimum 80%.
5	Experience	 0-2 years of experience as general labor/helper In lieu of minimum qualification the incumbent should have minimum 3 to 4 years' experience as trainee/general labor









Annexure: Assessment Criteria

CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role: Maintenance of Machinery - Helper (Plastic)
Qualification Pack Code: RSC/Q4810 (CPC/Q3001), V 1.0
Sector Skill Council: Rubber Skill Development Council

Guidelines for Assessment

- 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 laydown 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 centre (as per assessment criteria below).
- 4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre based on these 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.









Assessable Outcome			ment Crite outcome	
NOS	Performance Criterion Description	Total	Theory	Practical
RSC/N4832	PCI. adhere to time limits given by supervisor	3	1	2
(CPC/N3001): Receive tools and tackles from stores /	PC2. identify in consultation with supervisor the required tools, tackles, equipment and necessary hardware for the job to be carried out	3	1	2
department	PC3. ensure the required tools, tackles, equipment and necessary hardware are in proper working condition and match specification as per the job requirement and the list being provided by the supervisor	3	1	2
	PC4. coordinate within department/ store to obtain the identified tools and tackles to be carried to the job site	3	1	2
	PC5. carry the tools, tackles, equipment and hardware to the job site without damage	2.5	0.5	2
	PC6. inspect work site and extend necessary help for executing the job as per suggestion of the supervisor.	2.5	0.5	2
	Sub total	17	5	12
RSC/N4833 (CPC/N3002): Assist for smooth	PCI. inspect the worksite to identify types of tools, tackles and hardware required for the job and the work site is clear from all obstructions	2.5	0.5	2
operation at site/ departments	PC2. ensure availability of tools, tackles and hardware required for the job	2.5	0.5	2
•	PC3. ensure tools, tackles and hardware required for the job are fit and ready to use	2.5	0.5	2
	PC4. identify the required tools, tackles and hardware required for any particular job	2.5	0.5	2
	PC5. collect and extend necessary help for smooth and timely completion of the job	2.5	0.5	2
	PC6. ensure the work place is properly illuminated	2.5	0.5	2
	PC7. ensure that the equipment is free from dust, oil, grease etc.	2.5	0.5	2
	PC8. ensure the work site is clean before starting the job	2.5	0.5	2
	PC9. extend help to dismantle, assemble and carry out maintenance activities required at the site	2.5	0.5	2
	PC10. oil and grease the parts of the equipment post completion of the job	2.5	0.5	2
	PC11. extend necessary help to welder, gas	2.5	0.5	2









	cutter, fitter, electrician, rigger, technician, operator, scaffold etc. for various nature of activities/jobs			
	PC12. ensure on completion of the job, the tools, tackles and hardware is carried back to department/store	2.5	0.5	2
	PC13. inform supervisor on completion of the assigned job.	2.5	0.5	2
	Sub total	32.5	6.5	26
RSC/N4834 (CPC/N3003):	PCI. ensure the tolls and tackles are cleaned before starting the job and after job	2.5	0.5	2
Clean the equipment	PC2. clean the equipment before dismantling/assembling completion	2.5	0.5	2
and work site	PC3. ensure the tools and tackles are cleaned (removing oil, dust, grease etc.) after completion of the job	2.5	0.5	2
	PC4. ensure to carry back the unused hardware's, materials etc. (with proper tagging if required) post completion of the job	2.5	0.5	2
	PC5. ensure the work place is free from dust, oil, grease, scraps etc. before starting the job	2.5	0.5	2
	PC6. ensure the work site is free from all obstacles	2.5	0.5	2
	PC7. clean the work site post job completion	2.5	0.5	2
	PC8. ensure all tools, tackles, scraps and hardware are removed from the work place and returned to the department/stores as per company procedure	3	0.5	2.5
	PC9. inform supervisor on completion of the assigned job.	3	0.5	2.5
	Sub total	23.5	4.5	19
RSC/N4835 (CPC/N3004):	PCI. use protective clothing/equipment for specific tasks and work conditions	0.75	0.25	0.5
Use basic health and safety practices at	PC2. state the name and location of people responsible for health and safety in the workplace	0.75	0.25	0.5
the workplace and Work effectively	PC3. state the names and location of documents that refer to health and safety in the workplace	0.75	0.25	0.5
with others	PC4. identify job-site hazardous work and state possible causes of risk or accident in the workplace	0.75	0.25	0.5
	PC5. carry out safe working practices while dealing with hazards to ensure the safety of self and others state methods of accident prevention in the work environment of the job role	0.75	0.25	0.5
	PC6. state location of general health and	0.75	0.25	0.5









and the same through the same and a large			
safety equipment in the workplace			
PC7. inspect for faults, set up and safely use steps and ladders in general use	0.75	0.25	0.5
PC8. work safely in and around trenches, elevated places and confined areas	0.75	0.25	0.5
PC9. lift heavy objects safely using correct procedures	0.75	0.25	0.5
PC10. apply good housekeeping practices at all times	0.75	0.25	0.5
PC11. identify common hazard signs displayed in various areas	0.75	0.25	0.5
PC12. retrieve and/or point out documents that refer to health and safety in the workplace	0.75	0.25	0.5
PC13. use the various appropriate fire extinguishers on different types of fires correctly	0.75	0.25	0.5
PC14. demonstrate rescue techniques applied during fire hazard	0.75	0.25	0.5
PC15. demonstrate good housekeeping in order to prevent fire hazards	0.75	0.25	0.5
PC16. demonstrate the correct use of a fire extinguisher	0.75	0.25	0.5
PC17. demonstrate how to free a person from electrocution	0.75	0.25	0.5
PC18. administer appropriate first aid to victims as required e.g. in case of bleeding, burns, choking, electric shock, poisoning etc.	0.75	0.25	0.5
PC19. demonstrate basic techniques of bandaging	0.75	0.25	0.5
PC20. respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments	0.75	0.25	0.5
PC21. perform and organize loss minimization or rescue activity during an accident in real or simulated environments	0.75	0.25	0.5
PC22. administer first aid to victims in case of a heart attack or cardiac arrest due to electric shock, before the arrival of emergency services in real or simulated cases	0.75	0.25	0.5
PC23.Demonstrate the artificial respiration and the CPR Process	0.75	0.25	0.5
PC24. participate in emergency procedures	0.75	0.25	0.5
PC25. complete a written accident/incident report or dictate a report to another person, and send report to person responsible	0.75	0.25	0.5
PC26. demonstrate correct method to move injured people and others during an emergency	0.75	0.25	0.5









Grand Total	100	25	75
Sub total	27	9	18
PC36. escalate grievances and problems to supervisor.	0.75	0.25	0.5
PC35. demonstrate responsible and disciplined behaviours at the workplace	0.75	0.25	0.5
PC34. use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism	0.75	0.25	0.5
PC33. display active listening skills while interacting with others at work	0.75	0.25	0.5
PC32. display appropriate communication etiquette while working	0.75	0.25	0.5
PC31. consult with and assist others to maximize effectiveness and efficiency in carrying out tasks	0.75	0.25	0.5
PC30. display helpful behaviour by assisting others in performing tasks in a positive manner, where required and possible	0.75	0.25	0.5
PC29. provide information to others clearly, at a pace and in a manner that helps them to understand	0.75	0.25	0.5
PC28. accurately pass on information to authorized persons who require it and within agreed timescale and confirm its receipt	0.75	0.25	0.5
PC27. accurately receive information and instructions from the supervisor and fellow workers, getting clarification where required	0.75	0.25	0.5