



Model Curriculum

Utility Hand (Skilled Marine)

SECTOR: STRATEGIC MANUFACTURING
SUB-SECTOR: SHIP BUILDING & SHIP REPAIR
OCCUPATION: REPAIR AND MAINTENANCE
REF ID: SMC/Q 4801, v1.0
NSQF LEVEL: 3





Certificate

**CURRICULUM COMPLIANCE TO
QUALIFICATION PACK – NATIONAL OCCUPATIONAL
STANDARDS**

is hereby issued by the

STRATEGIC MANUFACTURING SECTOR SKILL COUNCIL

for the

MODEL CURRICULUM

Complying to National Occupational Standards of

**Job Role / Qualification Pack : Utility Hand (Skilled Marine), QP No. SMC/Q4801,
Version 1.0, NSQF Level 3**

Date of Issue: 13th September, 2017
Valid Up to* : 12th September, 2020


Authorized Signatory

*Valid upto to the next review date of the Qualification Pack or the
Valid up to 'date mentioned above (whichever is earlier)

Strategic Manufacturing Sector Skill Council



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Utility Hand (Skilled Marine)

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Utility Hand (Skilled Marine)”, in the “Strategic Manufacturing” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Utility Hand (Skilled Marine)		
Qualification Pack Name & Reference ID.	SMC/Q 4801, v1.0		
Version No.	1.0	Version Update Date	13/ 09/2017
Pre-requisites to Training	8 th Standard		
Training Outcomes	After completing this programme, participants will be able to: <ul style="list-style-type: none">• assists in the smooth operation of plant and machineries• maintain equipment at ship construction site		



This course encompasses 3 out of 3 National Occupational Standards (NOS) of “Utility Hand (Skilled Marine)” Qualification Pack issued by “Strategic Manufacturing Sector Skill Council”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	Assist in shipbuilding decks on ship Theory Duration (hh:mm) 50:00 Practical Duration (hh:mm) 120:00 Corresponding NOS Code SMC/N 4801	<p>The user/individual on the job needs to know/understand/able to do:</p> <ul style="list-style-type: none">• maintenance of engines• cleaning of deck• carrying of tackles, tools, pulleys and wire rope to the job site• greasing of points on machines with lubricants• filling of engine oil, fuel, crane gear box oil and engine coolant• application of lubricants on crane wire ropes, pulley bearings etc• topping up of all hydraulic oils in hydraulic machineries• handling of wire rope slings and shift items with the help of slings and cranes• warning of danger to the operator of the equipment and others present on the site• application of jack properly wherever required• removal of obstructions coming in the way of travelling crane• movement of different types of cylinders at job sites• deposition of tools to section stores.• Hosing down of decks, bulwarks, and super-structure when required• Cleaning of the assemblies and the sub – assemblies before fitment• oiling and servicing of parts before integration/assembling• removal of hot work pieces on ship under construction	<ol style="list-style-type: none">1. General purpose tools- Chisel, medium, open jaw double ended spanner set, screw driver set (of small, medium and large).2. Greasing gun small.3. Sample of various type of grease and other lubricants.4. Small pulley block with chain.5. Wooden wedges (12 inches & 18 inches)6. Sample of lifting wire ropes7. Small hydraulic jack8. Cylinder Trolleys9. Cylinder of Oxygen Gas, Acetylene and CO₂Gas10. Iron stops small and (6 inches & below) medium (6 inches & above)11. Iron wedge small and (6 inches & below), medium (6 inches & above)12. Floor cleaning machine with rotator brush13. Wooden logs – 2 (6 feet long x 6 inches dia) (6 feet long x 12 inches dia)14. Power point presentation of various large machines like Compressor, Welding sets, Cranes Rolling Handler etc.
2	Working effectively in a collaborative environment Theory Duration (hh:mm)	<p>The user/individual on the job needs to know/understand/ able to do:</p> <ul style="list-style-type: none">• define own work and responsibilities• understand individual goals• understand work requirements	<ol style="list-style-type: none">1) Training Kit (trainer guide, PPT)2) Power point for general communication skills,



Sr. No.	Module	Key Learning Outcomes	Equipment Required
	20:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code SMC/N 9103	<ul style="list-style-type: none"> • collaborate and integrate own work with other people’s work • consult with others to achieve smooth workflow • work in a way that shows respect for others • carry out any commitments made to others • seek ways of improvement of work • learn skills from others that help in performing the work efficiently • ensure proper care is given to a fellow worker in case of an accident. • receive information and instructions accurately from the supervisor and colleagues • seek clarifications where required without disruption of own or others work • pass on accurate information to authorized persons who require it and within agreed timescale and confirm its receipt • communicate with other people clearly and effectively • use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism • display active listening skills while interacting with others at work and receiving feedback 	power point for shipyard & factory. 3) Team Management - Posters. 4) Team building - Posters. 5) Team Organisation in Shipyards - Posters. 6) Black board 7) Chalk 8) Duster
3	Maintain a healthy, safe and secure working environment Theory Duration (hh:mm) 20:00 Practical Duration (hh:mm) 16:00 Corresponding NOS Code SMC/ N 9104	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> • general rules on hygiene • importance of correct clothing, footwear, safety masks, respiratory masks, gloves, loose cotton and headgear • the physical signs of hazards and reactions related to exposures to such hazards • entry and exit route of vessel and evacuation procedures in case of an emergency • method of disposing waste material 	1) Training Kit (Trainer Guide, PPT) 2) Powerpoint presentation of safety general 3) Powerpoint presentation of safety in shipyard / factory 4) Leather apron 5) Safety helmets 6) Safety gloves 7) Industrial safety shoes 8) First aid kit



Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none">• work going on in surrounding areas• gasses generated on board of ship• effect of toxic gases in confined spaces• various types of safety signs and their meaning• correct emergency procedures• requirement of wearing clean and appropriate clothing, footwear and headgear at work place• importance of keeping a look out for hazards in the workplace related to equipment, process etc.• use of protective clothing such as gloves, safety glasses, etc for specific tasks & work conditions• reporting method of accidents quickly and accurately to the proper person	<ol style="list-style-type: none">9) Fire extinguisher (Soda & Foam Type)10) Fire bucket with sand11) Protective visor / screen12) Fire safety - Posters13) Posters of safety in shipyards14) Black Board15) Chalk16) Duster
	Theory Duration 90:00 Practical Duration 146:00	Unique Equipment Required: NIL	

Grand Total Course Duration: **236 Hours, 0 Minutes**

(This syllabus/ curriculum has been approved by [Strategic Manufacturing Sector Skill Council](#))



Trainer Prerequisites for Job role: “Utility Hand (Skilled Marine)” mapped to Qualification Pack: “SMC/ Q 4801, v1.0”

Sr. No.	Area	Details
1	Description	It helps to assist in the smooth operation and maintenance of the equipment at job sites under close supervision. He has limited responsibility of routine and repetitive activities and is skilled to handle basic range of mechanical maintenance on board ship.
2	Personal Attributes	The individual has to organize own work which may be routine or repetitive in nature. He should have basic communication (written and oral) and arithmetic skills. Also, understanding the initiative to improve efficiency and effectiveness in work.
3	Minimum Educational Qualifications	10 th Standard
4a	Domain Certification	Certified for Job Role: “ <u>Utility Hand (Skilled Marine)</u> ” mapped to QP: SMC/ Q 4801”. Minimum accepted score is 70%
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “MEP/Q0102”. Minimum accepted score is 80%.
5	Experience	Minimum 3 years experience in shipyard.



Annexure: Assessment Criteria

Assessment Criteria	
Job Role	Utility Hand (Skilled Marine)
Qualification Pack	SMC/Q4801, v1.0
Sector Skill Council	Strategic Manufacturing

Sr. No.	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	Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion.
6	To pass the Qualification Pack, every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.
7	In case of <i>unsuccessful completion</i> , the trainee may seek reassessment on the Qualification Pack.



Compulsory NOS Total Marks: 300				Marks Allocation	
Assessment outcomes	Assessment criteria for outcomes	Total marks	Out of	Theory	Skills/ Practical
SMC/N 4801 Assist in shipbuilding at decks on ship	PC1. carry tackles, tools, pulleys and wire rope to the job site	100	6	2	4
	PC2. greasing of points on machines with lubricants		6	2	4
	PC3. fill engine oil, fuel, crane gear box oil and engine coolant		6	2	4
	PC4. apply lubricants on crane wire ropes, pulley bearings etc		7	2	5
	PC5. top up all hydraulic oils in hydraulic machineries		7	3	4
	PC6. handle wire rope slings and shift items with the help of slings and cranes		7	3	4
	PC7. caution the operator of the equipment as well as site people in case of danger		7	3	4
	PC8. apply jack properly wherever required		7	3	4
	PC9. remove obstructions coming in the way of travelling crane		7	3	4
	PC10. deposit tools to section stores		6	3	3
	PC11. moving different types of cylinders at job sites		7	3	4
	PC12. hose down decks, bulwarks, and super-structure when required		7	2	5
	PC13. clean the assemblies and the sub – assemblies before fittment		7	3	5
	PC14. oiling and servicing of parts before integration/assembling		6	2	4
	PC15. remove hot work pieces on ship under construction		7	3	4
	Total	100	38	62	



SMC/N 9103 Work effectively in a collaborative environment	PC1. define own work and responsibilities	100	6	2	4
	PC2. understand organisational, individual and team goals		6	2	4
	PC3. understand work requirements and assigned targets		6	2	4
	PC4. collaborate and integrate own work with other people's work		6	2	4
	PC5. consult with others to achieve smooth workflow and help in maximising effectiveness and efficiency in carrying out tasks	6	2	4	
	PC6. work in a way that shows respect for others	6	2	4	
	PC7. carry out any commitments made to others	6	2	4	
	PC8. seek ways of improvement of work	6	2	4	
	PC9. learn skills from others that help in performing the work efficiently and share own skills with them, which may benefit their work	6	2	4	
	PC10. ensure proper care is given to a fellow worker in case of an accident	6	2	4	
	PC11. receive information and instructions accurately from the supervisor and colleagues	6	2	4	
	PC12. seek clarifications where required without disruption of own or others work	6	2	4	
	PC13. pass on accurate information to authorized persons who require it and within agreed timescale and confirm its receipt	6	2	4	
	PC14. communicate with other people clearly and effectively	6	1	5	
	PC15. use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism	6	1	5	
	PC16. display active listening skills while interacting with others at work and receiving feedback	5	1	4	



	PC17. resolve individual disagreements with the concerned person		5	1	4
		Total	100	30	70
SMC/N 9104 Maintain healthy, safe and secure environment	PC1. maintain cleanliness and hygiene	100	10	4	6
	PC2. wear clean clothing		9	4	5
	PC3. follow health procedures		9	4	5
	PC4. keep a look out for hazards		9	3	6
	PC5. use protective clothing/equipment		9	3	6
	PC6. report any accidents or near accidents quickly and accurately to the proper person		9	3	6
	PC7. practice emergency procedures		9	3	6
	PC8. respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments		9	3	6
	PC9. participate in emergency procedures and move injured people and others in correct method during an emergency		9	3	6
	PC10. perform emergency procedures		9	3	6
	PC11. administer appropriate first aid to victims where required eg. in case of bleeding, burns, choking, electric shock, poisoning etc.		9	3	6
		Total	100	36	64
	Minimum Pass % To Qualify (Aggregate)	70%			