



# QUALIFICATION PACK - OCCUPATIONAL STANDARDS FOR STRATEGIC MANUFACTURING 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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## Qualifications Pack - Joiner Ship

**SECTOR:** STRATEGIC MANUFACTURING

**SUB-SECTOR:** Ship Building & Ship Repair

**OCCUPATION:** Manufacturing, Installation and Repair

**REFERENCE ID:** SMC/Q 3901

**ALIGNED TO:** NCO-2015/ 7115.0500, ISCO -NIL

**Brief Job Description:** Joiner- Ship manufactures, installs and repairs some of the ship’s internal structures and equipment according to blue prints. It includes installation of wooden panels, laminates, deck coverings and fitting out of accommodation spaces. He is also responsible for own area of work during towage.

**Personal Attributes:** The individual has to organize work, which may be predictive and routine in nature involving basic degree of making choices, for responsible execution of familiar tasks. He should have basic communication (written and oral) and arithmetic skills. Also, understanding the initiative to improve efficiency and effectiveness in work.



Qualifications Pack for Joiner Ship

<b>Qualifications Pack Code</b>	<b>SMC/ Q 3901</b>		
<b>Job Role</b>	<b>Joiner Ship</b>		
<b>Credits (NSQF)</b>	TBD	<b>Version number</b>	<b>1.0</b>
<b>Sector</b>	Strategic Manufacturing	<b>Drafted on</b>	<b>05/11/2016</b>
<b>Sub-sector</b>	Ship Building and Ship Repair	<b>Last reviewed on</b>	<b>13/09/2017</b>
<b>Occupation</b>	Manufacturing, Installation and Repair	<b>Next review date</b>	<b>12/09/2020</b>
<b>NSQC Clearance on</b>	<b>NA</b>		

Job Details

<b>Job Role</b>	<b>Joiner Ship</b>
<b>Role Description</b>	Joiner- Ship manufactures, installs and repairs some of the ship's internal structures and equipment according to blue prints. It includes installation of wooden panels, laminates, deck coverings and fitting out of accommodation spaces. He is also responsible for own area of work during towage.
<b>NSQF level</b>	4
<b>Minimum Educational Qualifications</b>	12 <sup>th</sup> Standard
<b>Maximum Educational Qualifications</b>	N/A
<b>Prerequisite license or training</b>	N/A
<b>Minimum Job Entry Age</b>	18 years
<b>Experience</b>	1 year experience in shipyard
<b>Applicable National Occupational Standards (NOS)</b>	<p><b>Compulsory NOS:</b></p> <ol style="list-style-type: none"> <li><a href="#">SMC/N 3901 Carry out manufacturing, installation of ship internal structures and equipment</a></li> <li><a href="#">SMC/N 3902 Carry out repair and post joining checks of ship internal structures and equipment</a></li> <li><a href="#">SMC/N 9103 Work effectively in a collaborative environment</a></li> <li><a href="#">SMC / N 9104 Maintain safe, hygiene and secure environment</a></li> </ol>
<b>Performance Criteria</b>	As described in the relevant OS units



## Qualifications Pack for Joiner Ship

### Definitions

Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses and interest. 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 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 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.



## Qualifications Pack for Joiner Ship

### Acronyms

Keywords /Terms	Description
SMSSC	Strategic Manufacturing Sector Skill Council
NOS	National Occupational Standards
NSQF	National Skills Qualification Framework
NVEQF	National Vocational Educational Qualification Framework
NVQF	National Vocational Qualification Framework
OS	Occupational Standards
PC	Performance Criteria
QP	Qualification Pack
SSC	Sector Skills Council

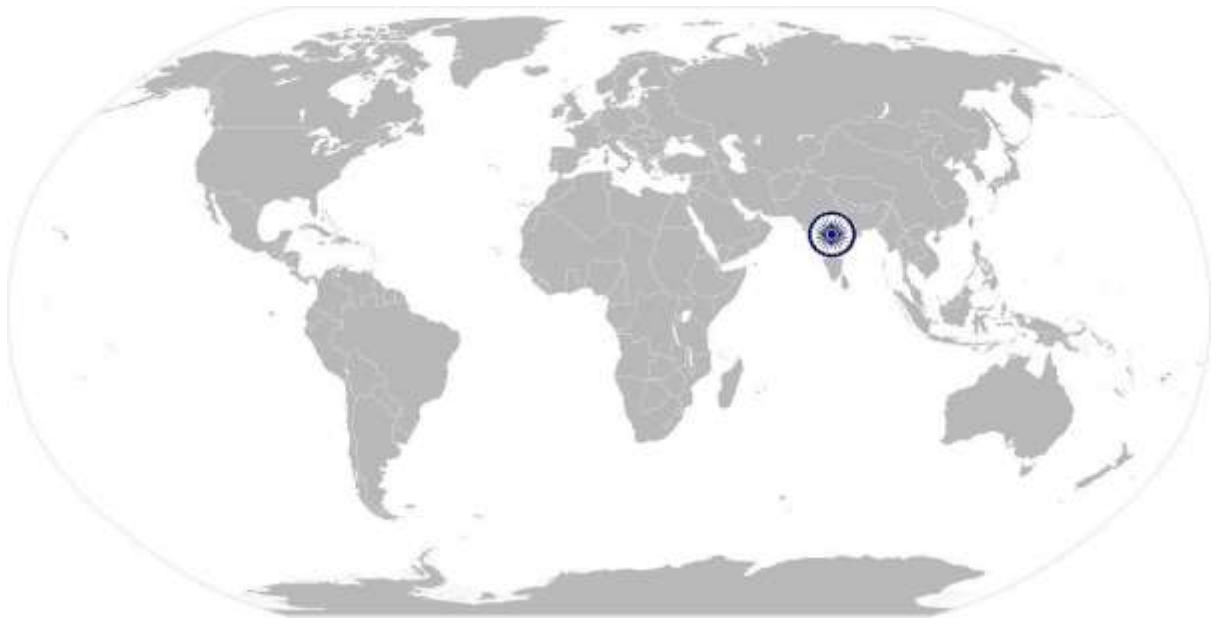


SMC/N 3901

Carry out manufacturing, installation of ship internal structures and equipment

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# National Occupational Standard



## Overview

This unit is about carrying out manufacturing, installation of ship internal structures and equipment.



SMC/N 3901

Carry out installation of ship internal structures and equipment

National Occupational Standard

<b>Unit Code</b>	<b>SMC/N 3901</b>
<b>Unit Title (Task)</b>	<b>Carry out manufacturing, installation of ship internal structures and equipment</b>
<b>Description</b>	This unit is about carrying out manufacturing, installation of ship internal structures and equipment
<b>Scope</b>	This unit/task covers the following: <ul style="list-style-type: none"> <li>Carrying out manufacturing, installation of ship internal structures and equipment</li> </ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Carrying out manufacturing, installation of ship internal structures and equipment</b>	To be competent, the individual must be able to: <ul style="list-style-type: none"> <li>PC1. construct, erect &amp; install internal structures of ship made out of wooden/lightweight material</li> <li>PC2. build foundations, floor beams, subflooring, walls and roof systems</li> <li>PC3. prepare mockup for various sections, equipment and machines</li> <li>PC4. construct floors, doors, and partitions, using woodworking machines</li> <li>PC5. assemble and install hull timbers and other structures in ship</li> <li>PC6. level wooden block to support ship from bottom</li> <li>PC7. prepare for launching arrangements</li> <li>PC8. work for docking and undocking of ships</li> <li>PC9. prepare wooden jigs, templates, models</li> <li>PC10. construct &amp; fit fixtures, utility blocks &amp; furniture in ship</li> <li>PC11. mark location &amp; size of fitting shelves, cabin items and sanitary items</li> <li>PC12. lock systems for all spaces, cabins and stares</li> <li>PC13. fabricate and install odd size wooden pieces in apron area and uprights in ship</li> <li>PC14. measure, cut and level panel and prepare projection for leveling</li> <li>PC15. fix ceiling band and mount plywood on walls</li> <li>PC16. prepare wooden box of odd sizes</li> </ul>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the organization and its processes)	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KA1. legislation, standards, policies, and procedures followed in the company relevant to own employment and performance conditions</li> <li>KA2. own job role and responsibilities</li> <li>KA3. reporting structure, inter-dependent functions and procedures in the work area</li> </ul>
<b>B. Technical Knowledge</b>	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KB1. how to extract and use information from engineering drawings and related specifications in relation to work</li> <li>KB2. different types of deck fittings</li> <li>KB3. type of fixtures to be used based on the kind of deck fittings</li> <li>KB4. standard specification of deck fittings , fittings and flanges</li> </ul>



SMC/N 3901

Carry out installation of ship internal structures and equipment

	<p>KB5. types of compression fittings; material required to seal the pipes/metal sheets/deck fittings</p> <p>KB6. material used to cement the joints</p> <p>KB7. types of measuring equipment</p> <p>KB8. how to measure internal and external dimensions, measuring geometric features</p>
<b>Skills (S)</b>	
<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. prepare and maintain documentation
	<b>Reading Skills</b>
	The user/individual on the job needs to know and understand how to: SA2. read vernacular/english language SA3. read and understand instructions, health and safety regulations SA4. read and interpret information correctly from job specifications, drawings, specifications, data sheets, SA5. read various colour codes, as per standard electrical, mechanical and civil nomenclature
	<b>Oral Communication (Listening and Speaking skills)</b>
The user/individual on the job needs to know and understand how to: SA6. express statements or information clearly so that others can hear and understand SA7. participate in and understand the main points of simple discussions SA8. respond appropriately to any queries SA9. communicate with peers, superiors and sub-ordinates	
<b>B. Professional Skills</b>	<b>Decision making</b>
	SB1. take decision with systematic course of actions and/or response
	<b>Teamwork</b>
	SB2. work constructively and collaboratively with others SB3. ask questions for better understanding SB4. organize work schedule to meet deadlines
	<b>Analytical thinking</b>
SB5. apply domain knowledge, observations and data to select course of action to perform tasks related to fabrication activities	



SMC/N 3901

Carry out installation of ship internal structures and equipment

## NOS Version Control

<b>NOS Code</b>	<b>SMC/N 3901</b>		
<b>Credits (NSQF)</b>	<b>TBD</b>	<b>Version number</b>	<b>1.0</b>
<b>Industry</b>	<b>Strategic Manufacturing</b>	<b>Drafted on</b>	<b>05/11/2016</b>
<b>Industry Sub-sector</b>	<b>Ship Building &amp; Ship Repair</b>	<b>Last reviewed on</b>	<b>13/09/2017</b>
<b>Occupation</b>	<b>Manufacturing, Installation and repair</b>	<b>Next review date</b>	<b>12/09/2020</b>



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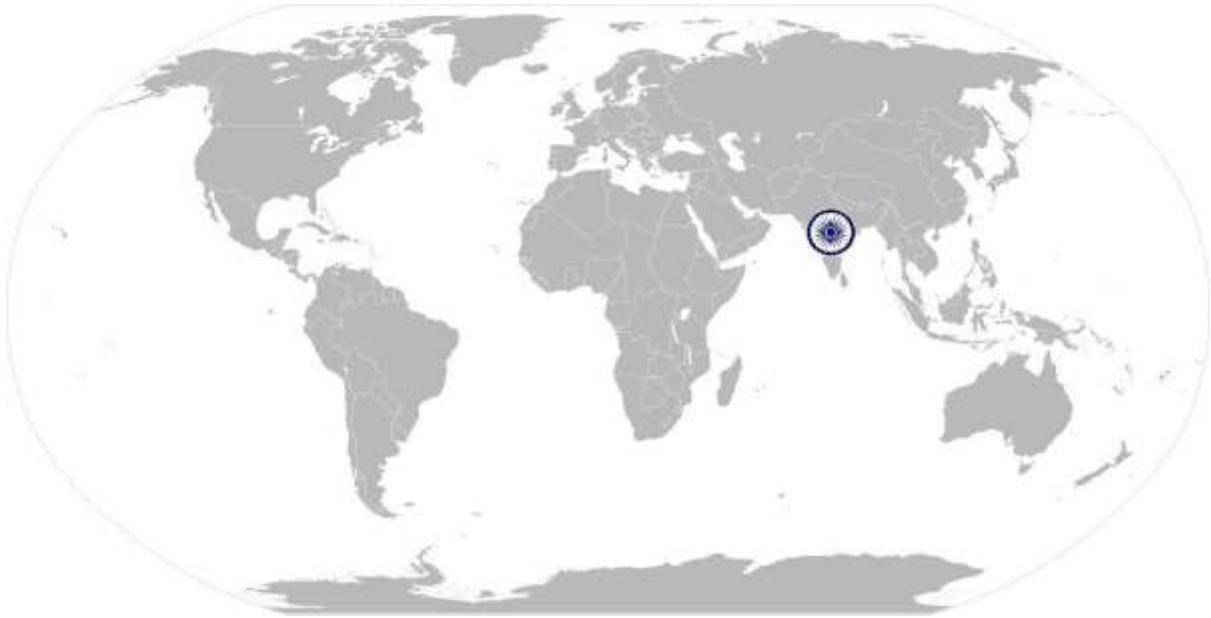


SMC/N 3902

Carry out repair and post joining checks of ship internal structures and equipment

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# National Occupational Standard



## Overview

This unit is about carrying out repair and post joining checks of ship internal structures and equipment.



SMC/N 3902 Carry out repair and post joining checks of ship internal structures and equipment

National Occupational Standard	<b>Unit Code</b>	SMC/N 3902
	<b>Unit Title (Task)</b>	Carry out repair and post joining checks of ship internal structures and equipment
	<b>Description</b>	This unit is about carrying out repair and post joining checks of ship internal structures and equipment
	<b>Scope</b>	This unit/task covers the following: <ul style="list-style-type: none"> <li>Carrying out repair of ship internal structures and equipment</li> <li>Carrying out post joining checks of ship structures and equipment</li> </ul>
	<b>Performance Criteria(PC) w.r.t. the Scope</b>	
	<b>Element</b>	<b>Performance Criteria</b>
	<b>Carrying out repair of ship internal structures and equipment</b>	To be competent, the individual must be able to: <ul style="list-style-type: none"> <li>PC1. repair internal structures of ship</li> <li>PC2. cut the cement sheet, wood glass wool, aluminum, laminates, plywood</li> <li>PC3. remove the templates for jackets</li> <li>PC4. repair structural woodwork and replace defective parts and equipment, using hand tools and power tools</li> <li>PC5. shape irregular parts and trims excess material from bulkhead and furnishings</li> </ul>
	<b>Carrying out post joining checks of ship internal structures and equipment</b>	To be competent, individual must be able to: <ul style="list-style-type: none"> <li>PC6. participate in the daily activities of the deck maintenance department and keep track of projects and tasks that are being carried out aboard the vessel</li> <li>PC7. carry out proper operation and accounting of the joiner shop equipment, inventory and consumables</li> <li>PC8. attend department meetings and works in collaboration with the heads of the various departments which may require joining/carpentry expertise or feedback</li> <li>PC9. utilize various solvents for cleaning up, as needed, on completion of joining jobs</li> </ul>
	<b>Knowledge and Understanding (K)</b>	
	<b>A. Organizational Context</b> (Knowledge of the organization and its processes)	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KA1. legislation, standards, policies, and procedures followed in the company relevant to own employment and performance conditions</li> <li>KA2. own job role and responsibilities</li> <li>KA3. reporting structure, inter-dependent functions, lines and procedures in the work area</li> <li>KA4. importance and purpose of documentation in context of employment and work</li> </ul>
<b>B. Technical Knowledge</b>	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KB1. mechanical fastenings and joining material</li> <li>KB2. types of tools and equipment to check the work piece and the measuring equipment that is used</li> <li>KB3. material used for cutting and their uses</li> <li>KB4. material and tools used for joining and cutting method</li> <li>KB5. tools and equipment used in the cutting and preparing the deck fittings</li> </ul>	



**SMC/N 3902      Carry out repair and post joining checks of ship internal structures and equipment**

<b>Skills (S)</b>	
<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. prepare and maintain documentation
	<b>Reading Skills</b> The user/individual on the job needs to know and understand how to: SA2. read vernacular/english language SA3. read and understand instructions, health and safety regulations SA4. read various colour codes, as per standard electrical, mechanical and civil nomenclature
	<b>Oral Communication (Listening and Speaking skills)</b> The user/individual on the job needs to know and understand how to: SA5. express statements or information clearly so that others can hear and understand SA6. participate in and understand the main points of simple discussions SA7. communicate with peers, superiors and sub-ordinates
	<b>B. Professional Skills</b>
<b>Teamwork</b> The user/individual on the job needs to know and understand how to: SB1. organize work schedule to meet deadlines SB2. work constructively and collaboratively with others SB3. ask questions for better understanding	



**SMC/N 3902**      **Carry out repair and post joining checks of ship internal structures and equipment**

## **NOS Version Control**

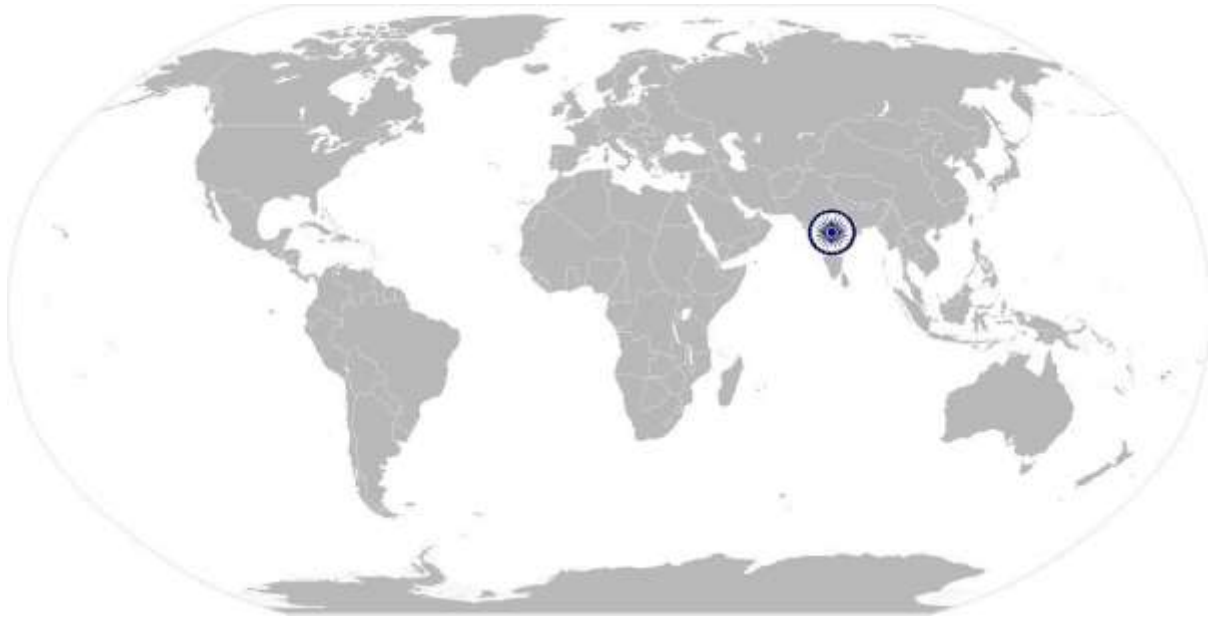
<b>NOS Code</b>	<b>SMC/N 3902</b>		
<b>Credits (NSQF)</b>	<b>TBD</b>	<b>Version number</b>	<b>1.0</b>
<b>Industry</b>	<b>Strategic Manufacturing</b>	<b>Drafted on</b>	<b>05/11/2016</b>
<b>Industry Sub-sector</b>	<b>Ship Building &amp; Ship Repair</b>	<b>Last reviewed on</b>	<b>13/09/2017</b>
<b>Occupation</b>	<b>Manufacturing, Installation and repair</b>	<b>Next review date</b>	<b>12/09/2020</b>



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# National Occupational Standard



## Overview

This unit covers basic practices for effective working with others at the work place, such as communication, etiquette, discipline, listening, handling conflict and grievances.



SMC/N 9103 Work effectively in a collaborative environment

National Occupational Standard	<b>Unit Code</b>	SMC/N 9103
	<b>Unit Title (Task)</b>	Work effectively in a collaborative environment
	<b>Description</b>	This unit covers basic practices for working effectively with others in a collaborative environment, such as cooperation, sharing of information, communicating effectively using appropriate etiquettes and behaviours, and interpersonal relations.
	<b>Scope</b>	<p>This unit/task covers the following:</p> <p>Activities covered:</p> <ul style="list-style-type: none"> <li>• Working effectively in a team</li> <li>• Etiquette and behaviors for:             <ul style="list-style-type: none"> <li>• communicating with other members and people internal or external to the organization</li> </ul> </li> <li>• Interpersonal relations</li> </ul>
	<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>	
<b>Working effectively in a team</b>	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. define own work and responsibilities</p> <p>PC2. collaborate and integrate own work with other people’s work</p> <p>PC3. consult with others to achieve smooth workflow and help in maximising effectiveness and efficiency in carrying out tasks</p> <p>PC4. discuss with the appropriate authority or person, any problems that arise, which may affect the work and remain unresolved</p> <p>PC5. carry out any commitments made to others</p> <p>PC6. learn skills from others that help in performing the work efficiently and share own skills with them, which may benefit their work</p> <p>PC7. work together as a single unit to ensure efficiency in work</p>	



**SMC/N 9103 Work effectively in a collaborative environment**

<p><b>Etiquette and behaviors for sharing information and communicating effectively</b></p>	<p>To be competent, the user/ individual must be able to:</p> <p>PC8. receive information and instructions accurately from the supervisor</p> <p>PC9. seek clarifications where required</p> <p>PC10. use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism</p> <p>PC11. follow etiquettes may include:</p> <ul style="list-style-type: none"> <li>• use appropriate titles and terms of respect</li> <li>• use polite language</li> <li>• avoid casual expressions</li> </ul> <p>PC12. display active listening skills while interacting with others at work and receiving feedback</p> <p>PC13. demonstrate responsible and disciplined behavior</p>
<p><b>Interpersonal relations</b></p>	<p>To be competent, the user/ individual must be able to:</p> <p>PC14. develop understanding, goodwill and trust with team members</p> <p>PC15. resolve individual disagreements with the concerned person</p> <p>PC16. recognize when a conflict situation exists and try to resolve amicably</p> <p>PC17. escalate unresolved grievances to appropriate authority</p>
<p><b>Knowledge and Understanding (K)</b></p>	
<p><b>A. Organizational Context</b> (Knowledge of the organization and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. legislation, standards, policies, and procedures followed in the company relevant to own employment and performance conditions</p> <p>KA2. reporting structure, inter-dependent functions, lines and procedures in the work area</p> <p>KA3. effective working relationships with both internal and external the people with which the individual is required to interact</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 developing effective working relationships</p> <p>KB2. importance of building rapport through collaboration and mutual support</p> <p>KB3. importance of effective communication in the workplace</p> <p>KB4. importance of tone and pitch in effective communication</p> <p>KB5. key elements of active listening</p> <p>KB6. importance of avoiding casual expletives and unpleasant terms while communicating in professional circles</p> <p>KB7. how poor communication practices can disturb people and environment</p> <p>KB8. importance of ethics for professional success</p> <p>KB8. importance of communicating clearly and effectively with people face-to-face, by telephone and in writing</p> <p>KB9. how to deal with difficult working relationships with people to sort out problems</p> <p>KB10. importance of discipline for professional success</p> <p>KB11. what constitutes disciplined behavior for a working professional</p> <p>KB12. common reasons for interpersonal conflicts</p> <p>KB13. process of resolving interpersonal conflicts</p> <p>KB14. importance and ways of managing interpersonal conflict effectively</p>



SMC/N 9103 Work effectively in a collaborative environment

	KB15. expressing and addressing grievances appropriately and effectively
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Oral Communication (Listening and Speaking skills)</b>
	The user/ individual on the job needs to know and understand how to: SA1. express statements or information clearly so that others can hear and understand SA2. participate in and understand the main points of simple discussions SA3. respond appropriately to any queries SA4. communicate with employees
<b>B. Professional Skills</b>	<b>Decision making</b>
	The user/individual on the job needs to know and understand how to: SB1. follow organization rule- based decision making process SB2. take decision with systematic course of actions and/or response
	<b>Team Working Skills</b>
	The user/individual on the job needs to know and understand how to: SB3. work constructively and collaboratively with others SB4. build rapport and cooperative relationships with d other departments for effective completion of work SB5. resolve conflicts within teams





SMC/N 9103      Work effectively in a collaborative environment

## NOS Version Control

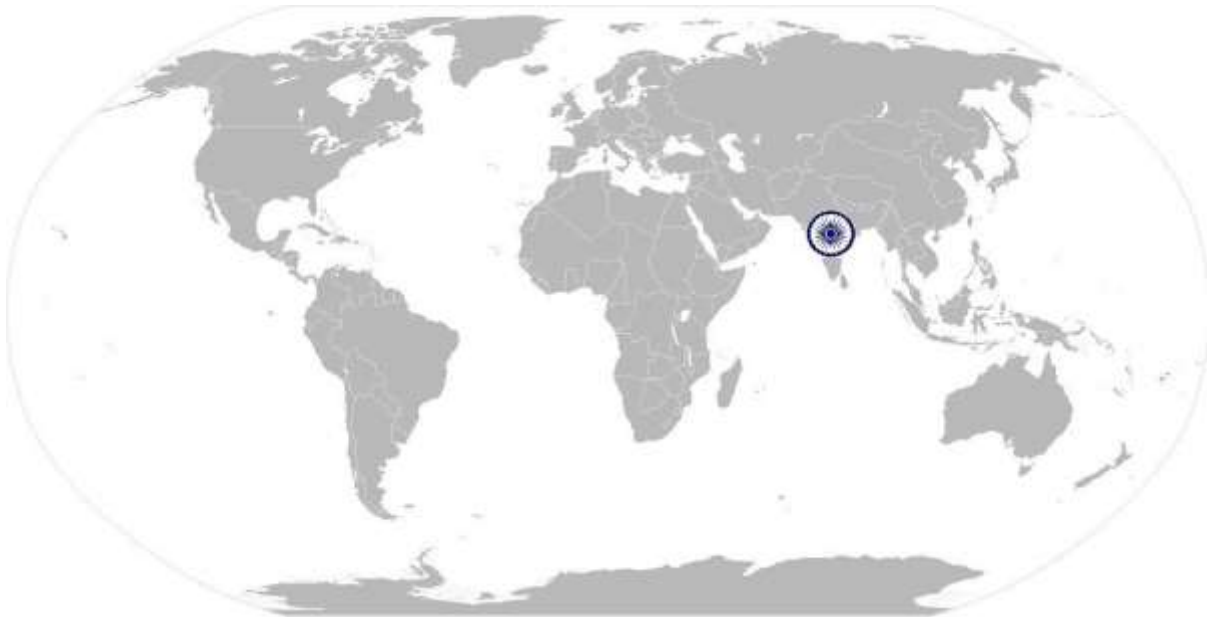
NOS Code	SMC/N 9103		
Credits (NSQF)	TBD	Version number	1.0
Industry	Strategic Manufacturing	Drafted on	05/11/2016
Industry Sub-sector	Ship Building & Ship Repair	Last reviewed on	13/09/2017
Occupation	Manufacturing, Installation and repair	Next review date	12/09/2020

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# National Occupational Standard



## Overview

This unit covers procedures and practices to be followed to maintain a healthy, safe and secure work environment.



<b>Unit Code</b>	<b>SMC/N 9104</b>
<b>Unit Title (Task)</b>	<b>Maintain a healthy, safe and secure working environment</b>
<b>Description</b>	This unit is about maintaining a healthy, safe and secure work environment. It covers responsibilities towards self, others, assets and the environment.
<b>Scope</b>	This unit/task covers the following: Activities covered: <ul style="list-style-type: none"> <li>• maintain healthy workplace environment</li> <li>• maintain safe and secure environment</li> <li>• fire safety</li> <li>• emergencies, rescue and first-aid procedures</li> </ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Maintain healthy workplace</b>	To be competent, the user/individual on the job must be able to: PC1. maintain cleanliness and hygiene PC2. follow health and hygiene procedures in all the work at all times PC3. identify common health hazards and symptoms for self and other members related to exposure of paint fumes, oxygen – deficient atmospheres, asbestos fibers, etc
<b>Maintain safe and secure environment</b>	To be competent, the user/individual on the job must be able to: PC4. keep a look out for hazards in the workplace relating to equipment, personal clothing and warning other people PC5. use protective clothing/equipment for specific tasks & work conditions such as gloves, safety glasses, headwear and footwear PC6. keep a lookout for accommodation related safety aspects <ul style="list-style-type: none"> <li>• all emergency lights operational, color coded and marked with "E"</li> <li>• escape routes unobstructed; exits clearly marked</li> <li>• safety signs and placards posted and clearly readable</li> <li>• life jackets, immersion suits &amp; EEBDs correctly stowed &amp; marked</li> <li>• muster list signed and properly displayed at appropriate locations</li> </ul> PC7. keep a lookout for the following machinery spaces related safety aspects <ul style="list-style-type: none"> <li>• escape routes, ladders and emergency exits unobstructed and clearly marked</li> <li>• all handrails, guard-rails and safety guards correctly fitted and secured to protect against fall</li> <li>• steering gear space free from oil, gratings or non-slip surfaces in place around the steering gear</li> <li>• shielding of high pressure fuel pipes in place, steam pipes properly insulated</li> </ul> PC8. keep a lookout for the following deck area related safety aspects



	<ul style="list-style-type: none"> <li>• all deck lights operational and in sound enclosures</li> <li>• piping systems on deck are properly clamped</li> <li>• watertight doors closing properly with packing in good condition</li> </ul> <p>PC9. report any accidents or near accidents quickly and accurately to the proper person</p>
<b>Fire safety</b>	To be competent ,the user/individual on the job must be able to: PC10. use appropriate fire extinguishers like sand, water, foam, CO2, dry chemical powder on different types of fire which are caused by heating of metal, sparking, spontaneous ignition, etc
<b>Emergencies, rescue and first-aid procedures</b>	To be competent ,the user/individual on the job must be able to: PC11. respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments PC12. perform and organize loss minimization or rescue activity during an accident in real or simulated environments administer basic first aid to victims PC13. participate in emergency procedures and move injured people and others during an emergency
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the organization and its processes)	The user/individual on the job needs to know and understand: KA1. responsibilities under the organization’s health, safety and security standards KA2. names of all the people responsible for health and safety in a workplace KA3. names and location of documents that refer to health and safety in the workplace.
<b>B. Technical Knowledge</b>	The user/individual on the job needs to know and understand: KB1. general rules on hygiene that one must follow KB2. knowledge of the adverse health effects that may be caused by the exposure to a hazard KB3. knowledge of proper use of barriers that may be needed to protect an entrant from hazards KB4. knowledge of entry and exit of vessel and evacuation procedures in case of an emergency KB5. knowledge of what personal protective equipment is needed for safe entry into and exit from the space KB6. knowledge of emergency indicators like sirens and what it indicates KB7. knowledge of precautions to be taken in confined spaces KB8. knowledge of precautions to be taken while working with working machine tools KB9. how to use various firefighting systems in ship like fire extinguishers, fire hose etc KB10. knowledge of precautions to be taken to be taken while working in heights like safety nets, length of rope and other safety practices in marine industry KB11. awareness of work going on in surrounding areas KB12. awareness of gasses generated on board of ship KB13. awareness of toxic gases in confined spaces



	<p>KB14. knowledge of OSHA (Occupational and Safety Administration) Standards for maritime engineering</p> <p>KB15. knowledge of disposal of waste materials</p> <p>KB16. meaning of “hazards” and “risks”</p> <p>KB17. hazards one can deal with oneself and hazards that must be reported to someone else</p> <p>KB18. where to find first aid equipment and who the registered first-aider is in the workplace</p> <p>KB19. rescue techniques applied during a fire hazard</p> <p>KB20. organization’s emergency procedures, in particular for fire, and how one should follow these</p> <p>KB21. where to find fire alarms and how to set them off</p> <p>KB22. where to find all the general health and safety equipment in the workplace</p> <p>KB23. preventive and remedial actions to be taken in the case of exposure to toxic materials</p> <p>KB24. content of written accident report</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	<p>SA1. The user/ individual on the job needs to know and understand how to:</p> <p>SA2. prepare and maintain documentation</p>
	<b>Reading Skills</b>
	<p>SA3. The user/individual on the job needs to know and understand how to:</p> <p>SA4. read various colour codes, as per standard electrical, mechanical and civil nomenclature</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>SA5. express statements or information clearly so that others can hear and understand</p> <p>SA6. participate in and understand the main points of simple discussions</p> <p>SA7. communicate with employees</p>
	<b>B. Professional Skills</b>
<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. organize work schedule to meet deadlines</p> <p>SB2. work constructively and collaboratively with others</p> <p>SB3. ask questions for better understanding</p>	
<b>Analytical thinking</b>	
<p>The user/individual on the job needs to know and understand how to:</p> <p>SB4. apply domain knowledge, observations and data to select course of action to perform tasks related to solar photovoltaic power plant</p>	



## NOS Version Control

<b>NOS Code</b>	SMC/N 9104		
<b>Credits (NSQF)</b>	TBD	<b>Version number</b>	1.0
<b>Industry</b>	Strategic Manufacturing	<b>Drafted on</b>	05/11/2016
<b>Industry Sub-sector</b>	Ship Building & Ship Repair	<b>Last reviewed on</b>	13/09/2017
<b>Occupation</b>	Manufacturing, Installation and repair	<b>Next review date</b>	12/09/2020



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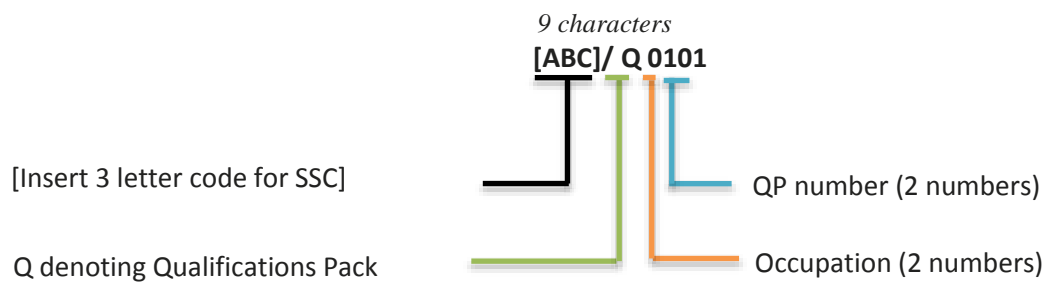


## Qualification Pack for Joiner Ship

### Annexure

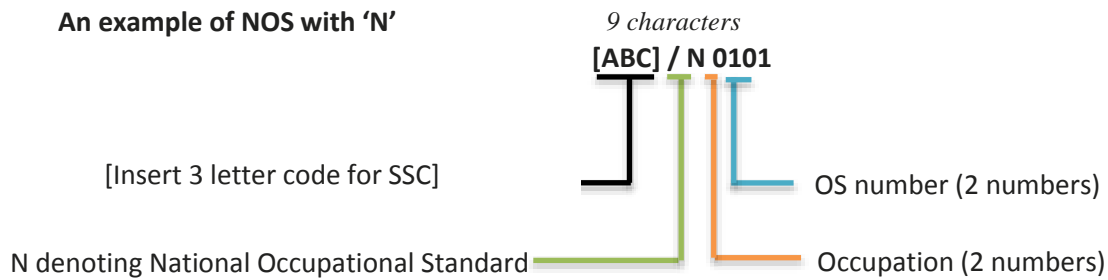
#### Nomenclature for QP and NOS

##### Qualifications Pack



##### Occupational Standard

##### An example of NOS with 'N'



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### Qualification Pack for Joiner Ship

The following acronyms/codes have been used in the nomenclature above:

Sub sectors	Range of occupation numbers
Defence Equipment - Land & Naval Systems	01-30
Ship building & Ship breaking	31-60
Electronic Security Equipment Manufacturing	61-75
Safety & Fire Fighting Equipment	76-90
Common	91- 94

Sequence	Description	Example
Three letters	Industry name	SMC
Slash	/	/
Next letter	Whether QP or NOS	Q or N
Next two numbers	Occupation code	1
Next two numbers	OS number	1

Note :

- The range of occupation numbers have been decided based on the number of existing and future occupations in a segment





**Qualification Pack for Joiner Ship**

**CRITERIA FOR ASSESSMENT OF TRAINEES**

**Job Role:** Joiner Ship

**Qualification Pack:** SMC/Q 3901

**Sector Skill Council:** Strategic Manufacturing Sector Skill 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. 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 *unsuccessful completion*, the trainee may seek reassessment on the Qualification Pack.



**Qualification Pack for Joiner Ship**

Compulsory NOS Total Marks: 400				Marks Allocation	
Assessment outcomes	Assessment criteria for outcomes	Total Marks	Out Of	Theory	Skills/ Practical
<b>SMC/Q 3901</b> Carry out manufacturing, installation of ship internal structures and equipment	PC1. construct, erect & install internal structures of ship made out of wooden/lightweight material	<b>100</b>	6	2	4
	PC2. build foundations, floor beams, subflooring, walls and roof systems		6	2	4
	PC3. prepare mockup for various sections, equipment and machines		5	2	3
	PC4. construct floors, doors, and partitions, using woodworking machines		5	2	3
	PC5. assemble and install hull timbers and other structures in ship		5	2	3
	PC6. level wooden block to support ship from bottom		5	1	4
	PC7. prepare for launching arrangements		6	2	4
	PC8. work for docking and undocking of ships		5	1	4
	PC9. prepare wooden jigs, templates, models		5	1	4
	PC10. construct & fit fixtures, utility blocks & furniture in ship		6	2	4
	PC11. mark location & size of fitting shelves, cabin items and sanitary items		5	1	4
	PC12. lock systems for all spaces, cabins and stairs		6	2	4
	PC13. fabricate and install odd size wooden pieces in apron area and uprights in ship		6	2	4
	PC14. measure, cut and level panel and prepare projection for leveling		6	2	4
	PC15. fix ceiling band and mount plywood on walls		5	1	4
	PC16. prepare wooden box of odd sizes		6	1	5
	<b>Total</b>	<b>100</b>	<b>30</b>	<b>70</b>	



**Qualification Pack for Joiner Ship**

Compulsory NOS Total Marks: 400				Marks Allocation	
Assessment outcomes	Assessment criteria for outcomes	Total Marks	Out Of	Theory	Skills/ Practical
<b>SMC/N 3902</b> Carry out repair and post joining checks of ship internal structures and equipment	PC1. repair internal structures of ship	<b>100</b>	12	4	8
	PC2. cut the cement sheet, wood glass wool, aluminium, laminates, plywood		11	4	7
	PC3. remove the templates for jackets		11	4	7
	PC4. repair structural woodwork and replace defective parts and equipment, using hand tools and power tools		11	3	8
	PC5. shape irregular parts and trim excess material from bulkhead and furnishings		11	3	8
	PC6. participate in the daily activities of the deck maintenance department and keep track of projects and tasks that are being carried out aboard the vessel, for taking feedback of quality of joining work executed		11	3	8
	PC7. carry out proper operation and accounting of the joiner shop equipment, inventory and consumables		11	3	8
	PC8. attend department meetings and works in collaboration with the heads of the various departments which may require joining/carpentry expertise or feedback		11	3	8
	PC9. utilize various solvents for cleaning up , as needed , on completion of joining jobs		11	3	8
	<b>Total</b>		<b>100</b>	<b>30</b>	<b>70</b>
<b>SMC/N 9103</b> Work effectively in a collaborative environment	PC1. define own work and responsibilities	<b>100</b>	6	2	4
	PC2. collaborate and integrate own work with other people's work		6	2	4
	PC3. consult with others to achieve smooth workflow and help in maximising effectiveness and efficiency in carrying out tasks		6	2	4



**Qualification Pack for Joiner Ship**

Compulsory NOS Total Marks: 400				Marks Allocation	
Assessment outcomes	Assessment criteria for outcomes	Total Marks	Out Of	Theory	Skills/ Practical
	PC4. discuss with the appropriate authority or person, any problems that arise, which may affect the work and remain unresolved		6	2	4
	PC5. learn skills from others that help in performing the work efficiently and share own skills with them, which may benefit their work		7	3	4
	PC6. work together as a single unit to ensure efficiency in work		6	2	4
	PC7. receive information and instructions accurately from the supervisor		7	3	4
	PC8. seek clarifications where required		6	2	4
	PC9. use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism		6	2	4
	PC10. exhibit proper work etiquettes		6	2	4
	PC11. display active listening skills while interacting with others at work and receiving feedback		7	3	4
	PC12. demonstrate responsible and disciplined behaviour		6	2	4
	PC13. develop understanding, goodwill and trust with team members		6	1	5
	PC14. resolve individual disagreements with the concerned person		7	2	5
	PC15. recognize when a conflict situation exists and try to resolve amicably		6	1	5
	PC16. escalate unresolved grievances to appropriate authority		6	1	5
		<b>Total</b>	<b>100</b>	<b>30</b>	<b>70</b>



**Qualification Pack for Joiner Ship**

Compulsory NOS Total Marks: 400				Marks Allocation	
Assessment outcomes	Assessment criteria for outcomes	Total Marks	Out Of	Theory	Skills/ Practical
<b>SMC/N 9104</b> Maintain a healthy, safe and secure working environment	PC1. maintain cleanliness and hygiene	<b>100</b>	7	2	5
	PC2. follow health procedures		7	2	5
	PC3. identify common health hazards		7	2	5
	PC4. keep a look out for hazards		7	2	5
	PC5. use protective clothing/equipment		7	2	5
	PC6. keep a lookout for accommodation for safety		7	2	5
	PC7. keep a lookout for the machinery		7	2	5
	PC8. keep a lookout for the deck		7	2	5
	PC9. report any accidents or near accidents quickly and accurately to the proper person		7	2	5
	PC10. use appropriate fire extinguishers on different types of fires correctly causes of fires		7	2	5
	PC11. respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments		7	2	5
	PC12. participate in emergency procedures and move injured people and others in correct method during an emergency		7	1	6
	PC13. perform and organize loss minimization or rescue activity during an accident in real or simulated environments administer basic first aid to victims		7	1	6
	<b>Total</b>	<b>100</b>	<b>36</b>	<b>64</b>	