

SKILLS FRAMEWORK FOR MARINE AND OFFSHORE				
SKILLS MAP - MASTER TRADE SPECIALIST/SENIOR TRADE SPECIALIST/TRADE SPECIALIST				
Sector	Marine and Offshore			
Track	Production Engineering			
Occupation	Marine Production Technician			
Job Role	Master Trade Specialist/Senior Trade Specialist/Trade Specialist			
Job Role Description	<p>The Master Trade Specialist/Senior Trade Specialist/Trade Specialist carries out complex electrical, electronic and/or mechanical work under the supervision of engineers. He/She is a technical expert who has amassed years of work experience and is able to perform or supervise the execution of activities related to installation, calibration, repair and maintenance of electrical circuits and components and/or mechanical equipment.</p> <p>He assists in the development of technical documents relating to work processes and procedures and task reports and may engage the organisation's management and clients on technical aspects of projects. He should be adaptable to work under different job demands to handle new build projects that require attention to detail and repair jobs which emphasise quick response and turnaround.</p>			
Critical Work Functions and Key Tasks	Critical Work Functions	Key Tasks	Performance Expectations (For legislated / regulated occupations)	
	Manufacture marine components	Translate technical drawings and specifications into manufacturing requirements	In accordance with: • Classification Society regulations; • Workplace Safety and Health (WSH) Act	
		Manage Computer Numerical Control (CNC) engineering projects		
		Oversee use of new technologies in production		
		Advise on alternative materials and processes to resolve production constraints		
		Review equipment, structural and arrangement drawings to identify appropriate methods for equipment installation		
		Review work specifications to identify waste and cost reduction opportunities		
		Enforce workplace safety and health (WSH) compliance during manufacturing processes		
	Assemble ships, rigs and marine equipment	Establish assembly job requirements and sequence of operations		
		Coordinate transfer of sub-assemblies and/or work pieces across work stations		
		Review current assembly activities and present ideas for work improvement		
	Plan surface preparation and protection	Develop surface preparation and protection plans		
		Conduct feasibility studies of recommended surface preparation and protection application techniques		
		Plan locations, climate control and other factors for surface preparation and protection		
	Execute launching operations	Ensure alignment of guides, rollers, airbags and other launching devices according to launch plans		
		Oversee disconnection of ships and rigs from shore-based auxiliaries prior to launch		
Oversee loading of underwater marine components and equipment to specified capacity for stability upon launching				
Enforce adherence to WSH and quality assurance and quality control (QA/QC) policies				
Coordinate reinstatement of slipways after launch				
Prepare berths for new production operation after launch				
Skills & Competencies	Technical Skills and Competencies		Generic Skills and Competencies (Top 5)	
	Additive Manufacturing	Level 3	Leadership	Intermediate
	Component Assembly	Level 3	Teamwork	Intermediate
	Computer Numeric Control Operations	Level 3	Problem Solving	Advanced
	Electrical Testing	Level 2	Service Orientation	Intermediate
	Emergency Response Management	Level 2	Interpersonal Skills	Intermediate
	Forming	Level 3		
	Incident and Accident Investigation	Level 2		
	Installation Planning and Execution	Level 3		
	Instrumentation and Control System Design	Level 3		
	Joining and Welding	Level 3		
	Laser and Optics Application	Level 2		
	Launch Planning and Management	Level 4		
	Marine Auxiliary System Maintenance	Level 3		
	Marine Engineering Calculations	Level 2		
	Marine Equipment and System Maintenance	Level 4		
Marine Equipment Material Selection	Level 3			

	Non-destructive Testing	Level 3	
	Procurement Coordination and Policy Development	Level 3	
	Programme Management	Level 3	
	Quality System Management	Level 2	
	Robotics and Automation Application	Level 2	
	Scaffolding	Level 4	
	Service Excellence	Level 2	
	Structural Testing	Level 2	
	Surface Preparation and Protection	Level 3	
	Technical Inspection	Level 3	
	Technical Writing	Level 2	
	Value Engineering	Level 3	
	WSH Culture Development	Level 2	
	WSH Performance Management	Level 2	
<b>Programme Listing</b>	For a list of Training Programmes available for the Marine and Offshore sector, please visit: <a href="http://www.skillsfuture.sg/skills-framework/marineandoffshore">www.skillsfuture.sg/skills-framework/marineandoffshore</a>		

The information contained in this document serves as a guide.