

SKILLS FRAMEWORK FOR SEA TRANSPORT SKILLS MAP - SENIOR ENGINEER/ENGINEER

Sector	Sea Transport			
Track	Port			
Sub-track	Port Engineering			
Occupation	Port Engineer			
Job Role	Senior Engineer/Engineer			
Job Role Description	The Senior Engineer/Engineer is responsible for developing and overseeing maintenance regimes and life cycle management for port equipment and infrastructure. As the first point of contact for complex repairs, he/she minimises disruptions and risks to port operations, while monitoring the team's performance and their key performance indicators. He is a team player with strong leadership skills, who is able to work under pressure, multi-task, work irregular hours, as well as at various heights.			
Critical Work Functions and Key Tasks	Critical Work Functions		Key Tasks	
	Manage the development and procurement of port equipment and infrastructure	Review financial data to identify performance improvement opportunities		
		Manage tenders and evaluate bidders for resource management		
		Manage engineering resources and budget		
	Oversee the implementation and maintenance of automated equipment and systems	Participate in the design and detailing for automated equipment and systems		
		Specify system components or direct modification of products to ensure conformance with engineering design and performance specification		
		Develop, coordinate, or monitor all aspects of installation and commissioning		
		Prepare specifications and drawings installation		
	Manage development and deployment of port engineers	Perform structural design analysis and calculations		
		Oversee the deployment of staff to maintenance functions		
		Assist in the recruitment and development of staff		
	Improve reliability of existing port equipment and infrastructure through asset enhancement and maintenance programmes	Develop training roadmaps to address competencies of port engineering team		
		Oversee the deployment of staff to maintenance functions		
		Assist in the recruitment and development of staff		
	Implement preventive maintenance plans	Develop cost-effective condition-based / preventive / corrective maintenance programmes		
		Measure equipment efficiency to propose improvements		
Perform corrective maintenance and troubleshooting	Monitor maintenance and repair schedules to ensure compliance			
	Review preventive maintenance checklist			
Ensure compliance with workplace safety and health (WSH) policies, procedures and regulations	Oversee complex repairs of port equipment			
	Oversee maintenance operations to ensure compliance with workplace safety and health requirements			
Manage business risks	Manage compliance with risk management frameworks, policies and processes			
	Analyse risk management data			
Lead improvements to enhance efficiency	Oversee implementation of workflow improvements to improve efficiency			
	Assess viability of workflow improvements			
Skills and Competencies	Technical Skills and Competencies		Generic Skills and Competencies (Top 5)	
	Architecture Design	Level 4	Leadership	Intermediate
	Budgeting	Level 4	Interpersonal Skills	Intermediate
	Business Continuity Management	Level 4	Communication	Intermediate
	Business Negotiation	Level 4	Managing Diversity	Intermediate
	Cash Flow Reporting	Level 3	Global Mindset	Intermediate
	Condition-based Monitoring	Level 4		
	Crisis Management	Level 4		
	Cyber Security	Level 3		
	Financial Analysis	Level 4		
	Financial Management	Level 4		
	Innovation	Level 4		
	Interface Management	Level 4		
	Learning and Development	Level 4		
	Manpower Planning	Level 4		
	Networking	Level 4		
	Organisational Strategy and Policy Realisation	Level 4		
	Port Equipment Maintenance	Level 4		
	Resource Management	Level 4		
	Risk Compliance and Governance	Level 4		
Risk Control and Response Planning	Level 4			
System Configuration Management	Level 4			

	Systems Integration	Level 4	
	Work at Heights	Level 3	
Programme Listing	For a list of Training Programmes available for the Sea Transport sector, please visit: www.skillsfuture.sg/skills-framework/sea-transport		

The information contained in this document serves as a guide.