

**SKILLS FRAMEWORK FOR SEA TRANSPORT
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

TSC Category	Cargo Operations					
TSC	Bulk Cargo Operations					
TSC Description	Perform loading and unloading of bulk cargo					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	STP-CGO-1001-1.1	STP-CGO-2001-1.1	STP-CGO-3001-1.1			
	Handle different types of bulk cargo	Operate a level luffing crane to handle bulk cargo	Supervise and coordinate stevedore activities in loading and unloading cargo at the wharf			
Knowledge	<ul style="list-style-type: none"> Types, features and operating procedures of equipment to handle bulk cargo Safe Working Load (SWL) and its usage Radio communications for bulk cargo operations Workplace Safety and Health (WSH) requirements for bulk cargo operations Personal Protective Equipment (PPE) for bulk cargo operations 	<ul style="list-style-type: none"> Crane structure, components, functions, drive controls, motions, usages and synchronisation Safe Working Load and its usage Hopper capacity and truck availability Hand signals Cabin travel control Bucket adjustment Safety devices and usages Control and operation elements in operator's cabin Cabin travelling Types of operations – cabin, luffing, slewing, hoisting and lowering, opening and closing of bucket Workplace Safety and Health (WSH) requirements for bulk cargo operations 	<ul style="list-style-type: none"> Types of vessels Berth and wharf marks Documents required for vessel operations Crane functions Remote controls Cargo documentation processes and procedures Workplace Safety and Health (WSH) policies, procedures and regulations 			

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<p>Abilities</p>	<ul style="list-style-type: none"> • Comply with WSH policies, procedures and regulations in bulk cargo operations • Perform pre-operations and safety inspection checks • Perform start-up, unloading and gantry operations • Perform crane operations • Carry out stopping, temporary stopping and emergency stopping operations • Conduct post-operations checks • Handle, discharge and loading of bulk cargo in various conditions 	<ul style="list-style-type: none"> • Communicate with ground personnel during operations • Identify hand signal commands and respond accordingly • Conduct pre-operations checks to ensure crane equipment is in working condition • Perform bucket adjustment and crane synchronisation • Perform cabin, luffing, slewing and gantry operations • Perform luffing, hoisting, slewing and bucket opening and closing operations with the cycle of 25 buckets per hour • Conduct post-operations checks • Handle, discharge, or load cargo at various level conditions 	<ul style="list-style-type: none"> • Differentiate between berth and wharf mark readings for various vessels • Check and verify cargo documents submitted prior to commencement of operations • Check all gears to be used in operations • Use the control box console to lower or hoist the ramp in accordance with safe working procedures • Coordinate with ship's crew for ramp adjustments • Conduct pre- and post-operations checks • Update vessel activity in systems • Process documents, check and verify the status and number of packages declared by customers • Collect evidence for monitoring and discharging of cargoes 			
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