

**SKILLS FRAMEWORK FOR MARINE AND OFFSHORE  
TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE DOCUMENT**

<b>TSC Category</b>	Product Finalisation					
<b>TSC</b>	Launch Planning and Management					
<b>TSC Description</b>	Execute launching procedures for ships, rigs and/or conversions by employing gravitational, mechanical, floating, airbag and other launching techniques					
<b>TSC Proficiency Description</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>	<b>Level 6</b>
			<b>MAR-PFI-3003-1.1</b>	<b>MAR-PFI-4003-1.1</b>	<b>MAR-PFI-5003-1.1</b>	
			Execute launch activities according to launch plan specifications	Manage launching activities and ensure safety of ships, rigs and/or conversions in the process	Develop launch plans based on tonnage, dimensions, forms, construction materials and feasibility of various launching methods	
<b>Knowledge</b>			<ul style="list-style-type: none"> <li>• Types of ship launch techniques</li> <li>• Interpretations of launch calculations</li> <li>• Types of launching cradles and their construction</li> <li>• Principles of securing ships in preparation for launches</li> <li>• Methods for transferring ship loads to launch ways</li> </ul>	<ul style="list-style-type: none"> <li>• Concepts in structural and arrangement drawings</li> <li>• Marine components of ships, rigs and/or conversions</li> <li>• Concepts of launch curves, side launching and end launching</li> <li>• Application procedures for gravitational, mechanical and other types of launching methods</li> <li>• Launching workflow processes and procedures</li> <li>• Roles and responsibilities of all departments in the launching process</li> <li>• Roles of statutory bodies and classification societies</li> <li>• Methods to ensure inter-departmental coordination</li> </ul>	<ul style="list-style-type: none"> <li>• Ship, rig and/or conversion specifications</li> <li>• Shell expansion plans, hydrostatic curves, trim and stability, launch calculations and other naval architecture calculations</li> <li>• Principles of gravitational, mechanical and other methods of ship launching</li> <li>• Hazards concerned with ship, rig and/or conversion launching</li> <li>• Principles of rig launching methods</li> <li>• Process workflow design procedures</li> </ul>	

**SKILLS FRAMEWORK FOR MARINE AND OFFSHORE  
TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE DOCUMENT**

<p><b>Abilities</b></p>			<ul style="list-style-type: none"> <li>• Select appropriate launch techniques from instructions and project parameters</li> <li>• Identify launch cradles, tools and equipment required for transferring ships and rigs to launch ways</li> <li>• Infer requirements for fastening loose items and other pre-launch preparations</li> <li>• Assess sufficiency of waterways for launches</li> </ul>	<ul style="list-style-type: none"> <li>• Infer alignment parameters of guides, rollers, airbags and other launching devices from launch plans</li> <li>• Identify shore power, supports and other shore-based auxiliaries to be disconnected before launch</li> <li>• Calculate ballast tank capacities required to provide stability upon launching</li> <li>• Calculate drag weights required to manage launch speeds</li> <li>• Identify necessary safety measures for launches</li> </ul>	<ul style="list-style-type: none"> <li>• Interpret structural and arrangement drawings and launch calculations to design specific launching procedures</li> <li>• Interpret trim and stability booklets to advise launching profiles for float-off launches</li> <li>• Infer effective launching methods based on ship, rig and/or conversion designs, port limitations and legislative requirements</li> <li>• Determine keel laying requirements for launches, with reference to types of supports employed</li> <li>• Analyse possibility of launching failures</li> </ul>	
-------------------------	--	--	---	---	---	--