

TSC Category	Marine Manufacturing					
TSC	Machining					
TSC Description	Fabricate components through controlled removal of materials from given blocks or pieces					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	MAR-MMF-1007-1.1	MAR-MMF-2007-1.1				
	Execute the prescribed machining techniques for manufacturing of components under close supervision, adhering to safety requirements set by the organisation	Ensure machining tasks are being carried out in compliance with the manufacturing workflows while using the correct techniques, measurement standards, materials and observing relevant safety parameters				
Knowledge	<ul style="list-style-type: none"> • Design drawings and blueprints • Applications of machining tools and equipment • Cutting speed, feed rates, work pieces, cutter revolution and other machining parameters • Measurements of limits, fits, and tolerances • Uses of hand tools and portable power tools • Types of machining defects and their causes • Relevant workplace safety and health (WSH) practices, guidelines and regulations 	<ul style="list-style-type: none"> • Types of processes commonly used in manufacturing marine components • Types of common marine materials • Relevant quality assurance and quality control (QA/QC) policies and procedures • Types of ships and rigs, terminologies and features • Principles and procedures for surface finishing • Methods for material take-off and material coding systems • Preventive maintenance of machining equipment 				

<p>Abilities</p>	<ul style="list-style-type: none"> • Interpret drawings and blueprints including material selection specifications • Establish job requirements and suitable sequence of machining operations • Ensure appropriate work materials are used • Set up and secure work pieces safely • Select appropriate cutting tools, and position and mount them • Determine and set appropriate machining parameters for jobs • Apply machining processes to produce components • Use suitable measuring instruments and/or gauges to check the components for conformance with specifications • Perform periodical maintenance and adjustment of machines 	<ul style="list-style-type: none"> • Conduct pre-operational checks and inspections to verify working conditions of tools • Verify machine configurations to eliminate errors • Check quality of finished components for compliance with required specifications and ensure they are free from defects • Perform preventive maintenance to maintain machines in their operational working conditions 				
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