

1. Title	Lead workgroups to maintain and repair main power units of ships
2. Code	EMSRRM401A
3. Range	In daily tasks related to maintenance of ships and marine engineering equipment , lead workgroups to maintain and repair main power units of ships, supervise the progress of work, formulate work specifications and supervise the work.
4. Level	4
5. Credit	3
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Working principles and repair of main power units of ships</p> <ul style="list-style-type: none"> <li>◆ Master the operation characteristics of internal combustion engine for marine diesel engines with different power output /turning speed</li> <li>◆ Understand the operation characteristics of steam turbine</li> <li>◆ Understand characteristics and work cycles of steam boiler</li> <li>◆ Understand the basic working principles of gas turbine and jet system</li> </ul> <p>6.2 Leading workgroups to maintain and repair main marine engineering equipment</p> <ul style="list-style-type: none"> <li>◆ Plan and supervise maintenance/repairs of ships' power units, ensure that the work procedures are carried out according to technical, statutory, safety and procedural requirements <ul style="list-style-type: none"> <li>• Use appropriate materials and equipment for repairs</li> <li>• Select the most appropriate measures for maintenance and repairs</li> </ul> </li> </ul> <p>6.3 Professionalism in leading the groups to maintain and repair main marine engineering equipment</p> <ul style="list-style-type: none"> <li>◆ Check the actual status of operation of the marine engineering equipment to see if the performance of equipment tallies with manufacturer's guidelines or requirements in the maintenance manuals</li> <li>◆ Perform repairs according to approved practice or the specifications and limitations recommended in repair manuals, and make decisions on repair methods</li> <li>◆ Prepare repair procedures and coordinate the repairs</li> </ul>

7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> <li>(i) Capable to lead workgroups to carry out maintenance and repairs of main power units of ships;</li> <li>(ii) Capable to identify causes of failures of machines and methods to eliminate the failures according to approved procedures or repair manual instructions; and</li> <li>(iii) Capable to effectively supervise the repairs of main marine engineering equipment.</li> </ul>
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses basic mechanical principles and the knowledge of repairing main power units of ships (such as: EMSRRM102A “Repair and maintain general marine devices” and EMSRIN301A “Assemble and install marine engineering system and mechanical equipment”) and know about the basic management and planning techniques.</p>