

1. Title	Assemble and install marine engineering system and mechanical equipment	
2. Code	EMSRIN301A	
3. Range	Install deck equipment of small boats (boat length less than 100m) according to the operation characteristics of the system.	
4. Level	3	
5. Credit	9	
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Characteristics and operating principles of general marine engineering system and mechanical equipment</p> <ul style="list-style-type: none"> ◆ Understand the operating principles and assembly arrangement of the following marine engineering equipment system and mechanical equipment <ul style="list-style-type: none"> • main engine system and its mechanical equipment • auxiliary machinery system and its mechanical equipment • characteristics of gas supply system • marine boiler system and its mechanical equipment • marine steam turbine equipment system and its mechanical equipment • marine gas turbine equipment system and its mechanical equipment • rudder steering system and its mechanical equipment • pump suction and discharge system and its mechanical equipment • propelling system and its mechanical equipment • refrigeration system and its mechanical equipment • anti-corrosion and anti-fouling • marine fire system and its mechanical equipment • marine electric power system and its mechanical equipment <p>6.2 Methods and procedures of installing general marine engineering system and equipment</p> <ul style="list-style-type: none"> ◆ Use relevant tools to assemble and install typical marine engineering equipment and be able to: <ul style="list-style-type: none"> • Master the characteristics and limitations of craft skills used to assemble and install marine engineering system and mechanical equipment • consider the nature and parameters of the system and components in the course of assembly and installation 	

	<p>6.3 Professionalism in installing general marine engineering and system equipment</p> <ul style="list-style-type: none"> ◆ Properly follow important assembly instruction and parameters (e.g. installation manual, manufacturer’s guidelines, etc.) for typical marine engineering equipment system components ◆ Correctly select appropriate installation materials and assembly method to comply with the prescribed tolerance ◆ Use appropriate equipment and mechanical tools and comply with general safety practices
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Capable to correctly install general marine engineering system and mechanical equipment according to installation procedures, use tools and instruments, record data and adjust the equipment to prescribed standard ; and</p> <p>(ii) Capable to follow the prescribed safety rules and procedures to implement the installation work.</p>
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses basic knowledge of marine engineering equipment system and the ability to assemble equipment (such as: EMSRIN101A”Read main basic ship hull drawings” and EMSRIN201A”Basic layout and assembly of ship power units”).</p>