

1. Title	Organize and arrange assembly of aluminium-alloy ships
2. Code	EMSRIN407A
3. Range	Apply corresponding assembly techniques for different types of materials (such as aluminium alloys, honeycomb panels and some less popular materials) to formulation of installation procedures when handling daily tasks related to installation of aluminium alloy hulls; lead groups to work and manage general frontline tasks at shipyards.
4. Level	4
5. Credit	3
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Structure of and work requirements on aluminium alloy hulls</p> <ul style="list-style-type: none"> ◆ Understand the structure of aluminium alloy hulls, such as: <ul style="list-style-type: none"> • Fabrication and stress positions of main components • Installation standards, such as angle, border, stern cover, jointing and finishing • Structural arrangements of different bulkheads and thicknesses, weight and strength requirements for corresponding assembly different types of materials (such as aluminium alloys, honeycomb panels and some less popular materials) ◆ Understand the general standards for assembling aluminium alloy hulls established by regulatory bodies and classification societies, such as relevant constitution and regulations and criteria on allowed wear of hull parts <p>6.2 Methods and procedures of assembling aluminium alloy hulls</p> <ul style="list-style-type: none"> ◆ Make preparations for assembling aluminium alloy hulls so as to ensure proper plans, technical specifications, materials and equipment for execution of works; for example, prepare for different types of jointing edges (of different thicknesses) to prevent the following phenomena: <ul style="list-style-type: none"> • Shrinkage • Distortion • Deformation • Corrosion • Material fatigue ◆ Adopt strict surveillance measures for important work processes, such as: <ul style="list-style-type: none"> • Cutting • Drilling • Welding • Binding • Folding • Bending

	<p>6.3 Professionalism in assembling aluminium alloy hulls</p> <ul style="list-style-type: none"> ◆ Monitor the procedures of assembling hulls according to technical guidelines of regulatory bodies, classification societies and materials manufacturers, in-house guidelines, customer needs and instructions on working drawings, and ensure that the procedures are in compliance with approved practice ◆ Make decisions on assembly according to approved procedures, and standards and limitations recommended by regulatory bodies or classification societies ◆ Organize work procedures and coordinate the efforts according to actual situations
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> (i) Capable to compare the merits and demerits and concerns of various types of technologies in the course of formulating procedures for assembling aluminium alloy hulls; and (ii) Capable to lead groups to carry out assembly procedures, to apply tools and equipment, to record data and to work to the standards of regulatory bodies.
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses basic knowledge of assembling hulls (such as EMSRRM301A “Repair hull structures of non-steel ships”).</p>