

1. Title	Repair hull plates and hull structures	
2. Code	EMSRRM314A	
3. Range	Apply the techniques and knowledge of hull structures to repairs of hull and metal structures, to repairs or replacements of common hull plates of 16-20mm in thickness at dockyards, maintenance shipyards or relevant locations.	
4. Level	3	
5. Credit	6	
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Basic knowledge of hulls and their structures</p> <ul style="list-style-type: none"> ◆ Know about the general safety practice for pressing and jointing 16-20mm thick metal plates for ships ◆ Know about the methods of full position bonding, rolling and dynamic pressing and their application to ship structure repairs ◆ Know about the main functions of common hull plates and metal structures, such as upper deck, hull plates and bilge motherboard, under-waterline plate, reinforced deck, hull frame, bow-to-stern frame, bulkhead plates and fabricated plates inside oil and water tank ◆ Know about the grades (such as AH) of hull plates and the standards and supervision of hull structure repairs <p>6.2 Methods and procedures of repairing hull plates and hull structures</p> <ul style="list-style-type: none"> ◆ Perform tasks of pressing, forming and repairing hull metal plates according to work standards ◆ Use tools and common forming, bending and rolling machines effectively and carry out the processes of toughening metal plates and pressing metal plates ◆ Master the work processes of jointing hull metal plates of 16-20mm in thickness, such as preparing joints, treating carbon elements, back gouging and fitting ◆ Carry out MIG and TIG welding at different positions so as to repair hull plates and hull structures <p>6.3 Professionalism in repairing hull plates and hull structures</p> <ul style="list-style-type: none"> ◆ Inspect the positions of the hull plates and hull structures which are frequently flushed, water-soaked, abraded and corroded, and set working schedules for repair or replacement under instruction or after assessment ◆ Identify the hull sections which are usually worn out and their jointing conditions and adopt measures to stop deterioration ◆ Describe the details of works clearly and compile relevant repair reports 	

7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> (i) Capable to perform tasks of repairing and replacing common hull metal plates (16-20mm thick) and of repairing hull structures so as to pass the examinations and tests set by regulatory bodies; and (ii) Capable to select and use appropriate tools and perform tasks of repairing hull plates and hull structures according to repair instructions.
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses the competency of EMSRRM206A “Repair and maintain ship hull and its structural elements”.</p>