

1. Title	Repair ship piping system	
2. Code	EMSRRM307A	
3. Range	Regarding ship maintenance/repairs and construction works in dockyards, use the techniques and knowledge of pipeline repair to assist in planning new assembly projects for piping systems or relaying pipelines and overhauls of general pipes and accessories.	
4. Level	3	
5. Credit	6	
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Basic knowledge of ship pipelines and valves and causes of their failures</p> <ul style="list-style-type: none"> ◆ Know about the functions of all kinds of ship piping systems and their requirements according to the nature of different fluids they transmit (such as sea water, fresh water, oils, gases and liquids with different pressures or temperatures) ◆ Know about different types of ship valves and their working principles, such as stop valve, check valve, throttle valve, pressure control valve ◆ Know about colour classification and coding of ship piping systems ◆ Know about concerns for general repair and maintenance or assembly of pipelines and valves, such as: <ul style="list-style-type: none"> • leakage • sticking • blockage • loosing • breaking <p>6.2 Techniques of and methods of repairing ship pipelines</p> <ul style="list-style-type: none"> ◆ Master the methods of measuring the thicknesses and testing pressure of general pipes and valves ◆ Use correct tools for the procedures of assembling pipelines and valves, such as cutting, bending, threading, disassembling and jointing ◆ Master the method of jointing special copper-nickel alloy pipes ◆ Isolate, disassemble and assemble ship piping systems according to approved practice and procedures or repair manual instructions ◆ Adopt appropriate measures to repair or relay pipelines and valves according to the actual environment and condition 	

	<p>6.3 Professionalism in repairing ship pipelines</p> <ul style="list-style-type: none"> ◆ Make the following preparations for the repair or new assembly project <ul style="list-style-type: none"> • Select appropriate materials • Draft working drawing • Prioritize the repair items • Allocate repair works and arrange for implementation ◆ Examine the temperature and pressure that the joints of various types of pipelines and valves can withstand, and give advice on repair or assembly if necessary ◆ Compile simple 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 repair and relay the pipelines for general ship piping systems, and test the standard of work according to approved practice and procedures; and (ii) Capable to correctly select and use appropriate methods to identify causes of failures in pipelines and valves, and adopt appropriate measures to repair or replace the damaged parts.
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses practical knowledge of ship pipeline repair and maintenance and masters the application techniques of installation and repair.</p>