

1. Title	Repair and maintain ship pipes
2. Code	EMSRRM203A
3. Range	Apply the knowledge of ship piping system to implement regular repairs and maintenance on the existing pipes and their accessories on board, repair workshops or dockyard related worksites.
4. Level	2
5. Credit	8
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Basic knowledge of ship pipes and their accessories</p> <ul style="list-style-type: none"> ◆ Know about the characteristics, size and applications of materials commonly use for ship piping system <ul style="list-style-type: none"> • Alloys such as steel, copper, nickel, molybdenum and aluminum • Plastics such as PVC and ABS ◆ Know about the specifications of metallic and non-metallic pipes such as standard pipe, reinforced pipe, extra-strong pipe and classify and apply different types of pipes and pipelines ◆ Know about the basic knowledge of and main applications (such as feed water, exhaust, etc.) of general standard piping systems and regular repair accessories for ships <p>6.2 Methods of maintaining existing pipes</p> <ul style="list-style-type: none"> ◆ Master the methods of fastening and supporting general ship pipes ◆ Follow instructions to repair, disassemble, replace or reinstall ship pipes and regular repair accessories ◆ Effectively use pipe repairing tools to repair and maintain ship pipes and accessories, such as acid clean, degreasing, blow and purge, pressure testing, adjustment of coupling, etc. <p>6.3 Professionalism in repairing and maintaining ship pipes</p> <ul style="list-style-type: none"> ◆ Adjust the requirements for repair and maintenance in the course of work according to the characteristics of different types of pipes, such as: taking precautions against potential corrosion of all kinds of metallic pipes especially aluminum alloy pipes, selecting appropriate coating and cathodic protection ◆ Observe the sections of pipes and accessories usually displaced, forced, vibrate, exerted with high pressure and high temperature, and corroded, and give advice on repair if necessary ◆ Identify sections of pipes and accessories usually leak, and assist in implementing preventives against breaking of pipes ◆ Describe the details of repairs and maintenance clearly

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, connect and check general ship pipes and accessories; and (ii) Capable to correctly select and use appropriate tools to implement regular repairs, maintenance and replacement on the existing pipes and their accessories 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 basic ability to install simple metallic pipes and all kinds of pipe components</p>