

1. Title	Inspection and testing of ship lifting appliances		
2. Code	EMSRIT405A		
3. Range	Master the performance of lifting appliances and the procedures for inspecting them and formulate relevant work processes for inspection of ship lifting appliances when handling daily tasks related to inspection, commissioning and testing ship lifting appliances.		
4. Level	4		
5. Credit	3		
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Regulations and legal requirements on lifting appliances for ship repairs</p> <ul style="list-style-type: none"> ◆ Understand ordinances related to lifting for ship repairs: <ul style="list-style-type: none"> • Code of marine safety • Occupational safety and health ordinance • Factories and Industrial Undertakings Ordinance • Factories and Industrial Undertakings Regulations ◆ Understand the requirements and rules for testing lifting appliances, such as statutory regulations for inspection of ships and marine facilities, ship safety standards, other relevant international standards and codes of practice ◆ Understand the operation and performance of lifting appliances for ship repairs, including: <ul style="list-style-type: none"> • Types and uses of lifting appliances • Combinations of units of lifting appliances and their limitations • Safe working load of lifting appliances • Safety devices of lifting appliances ◆ Understand the work allocation and safety procedures of the mechanical, electrical and control systems of lifting appliances <p>6.2 Methods of inspecting and testing the mechanical, electrical and control systems of lifting appliances</p> <ul style="list-style-type: none"> ◆ Interpret correctly the information used in inspections and tests, such as mechanical drawings, wiring diagrams, overall layout plans, load charts, specifications, manufacturer's manuals, past maintenance records and written symbols ◆ Master the calibration of testing instruments and connect them to the lifting appliances to be inspected, commissioned and tested ◆ Master the procedures of inspecting and testing general mechanical handling equipment and carry out different inspection items and procedures according to the requirements of approved regulations 		

	<p>6.3 Professionalism in inspecting and testing lifting appliances</p> <ul style="list-style-type: none"> ◆ Understand the inspection requirements on electrical lifting gear and implement the control system according to relevant requirements, including inspection and testing of alarms and safety devices ◆ Describe the results of routine tests correctly and if necessary, provide relevant information for further analysis and inspection ◆ Meet the legal requirements stated in the certificate for general lifting appliances, such as initial test and inspection, annual overhaul, renewal test and inspection; supervise frontline works and inspection on lifting appliances and tests on lifting by claims adjusters ◆ Use visual (eye) observation and other alternatives during on-site inspection, such as hammer test on components and parts, and ultrasonic inspection and magnetic particle test ◆ Confirm whether there is any deformation and defect of the components of the lifting appliance, such as cracks, excessive wear and rusting, because its safety and normal lifting operation will be affected by such conditions in future ◆ State the work responsibility and report accurately and seek assistance if matters are beyond personal purview
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Capable to supervise the inspection of the operation of various types of lifting appliances properly; and</p> <p>(ii) Capable to implement relevant inspection procedures, apply testing tools and instruments and record and analyze data properly; certify the inspection and test results.</p>
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already knows about general loading equipment and lifting appliances and possesses basic knowledge of works supervision (such as EMCUOM102A “Basic knowledge of electrical and mechanical services management” and EMSRIN204A “Use ship’s lifting appliances”).</p>