

1. Title	Test automatic installations											
2. Code	EMSRT302A											
3. Range	Regarding regular inspection, commissioning and testing for ship repair and marine engineering works, assist in planning test arrangements and implementing the tests for automatic installations, and use the test results for analysis.											
4. Level	3											
5. Credit	3											
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <table border="0"> <tr> <td style="vertical-align: top;">6.1</td> <td style="vertical-align: top;">Knowledge of testing automatic installations</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> ◆ Master the indicators and cycle of testing automatic equipment, and procedures and performance criteria for testing automatic installations ◆ Be familiar with the sensing and transmission mode of signals of automatic systems ◆ Master the operating principles of pneumatic and electronic transmission systems ◆ Master basic regulation concept and the operating principles of open and closed loop regulation systems </td> </tr> <tr> <td style="vertical-align: top;">6.2</td> <td style="vertical-align: top;">Methods and procedures of testing automatic installations</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> ◆ Systematically implement tests on ship and marine automatic installations ◆ Know how to illustrate all processes of the operation of automatic installations with block diagrams ◆ Interpret display signals for the monitoring and alarm of the installation system, and process and integrate the messages ◆ Master the regulation techniques, and process and integrate the regulated data according to the inter-relationship of input and output items ◆ Appropriately coordinate the functional performance of automatic installations and its components after testing </td> </tr> <tr> <td style="vertical-align: top;">6.3</td> <td style="vertical-align: top;">Professionalism in testing automatic installations</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> ◆ Follow user manuals of ship or marine automatic installations and make use of the knowledge and experience of equipment test indicators to implement test procedures and analyze test data ◆ Record the setting point of each test item, and maintain effective monitoring and alarm required after regulation ◆ Assist in planning test arrangements </td> </tr> </table>			6.1	Knowledge of testing automatic installations	<ul style="list-style-type: none"> ◆ Master the indicators and cycle of testing automatic equipment, and procedures and performance criteria for testing automatic installations ◆ Be familiar with the sensing and transmission mode of signals of automatic systems ◆ Master the operating principles of pneumatic and electronic transmission systems ◆ Master basic regulation concept and the operating principles of open and closed loop regulation systems 	6.2	Methods and procedures of testing automatic installations	<ul style="list-style-type: none"> ◆ Systematically implement tests on ship and marine automatic installations ◆ Know how to illustrate all processes of the operation of automatic installations with block diagrams ◆ Interpret display signals for the monitoring and alarm of the installation system, and process and integrate the messages ◆ Master the regulation techniques, and process and integrate the regulated data according to the inter-relationship of input and output items ◆ Appropriately coordinate the functional performance of automatic installations and its components after testing 	6.3	Professionalism in testing automatic installations	<ul style="list-style-type: none"> ◆ Follow user manuals of ship or marine automatic installations and make use of the knowledge and experience of equipment test indicators to implement test procedures and analyze test data ◆ Record the setting point of each test item, and maintain effective monitoring and alarm required after regulation ◆ Assist in planning test arrangements
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7. Assessment Criteria	The integrated outcome requirement of this unit of competency is: (i) Capable to correctly implement test procedures for ship and marine automatic installations, use testing tools and equipment, record and process data, and use the data to clearly demonstrate the test results.
8. Remarks	The credit value of this unit of competency is set on the presumption that the person already possesses basic knowledge of inspection, commissioning and testing.