

1. Title	Organize and arrange installation of ships' propulsion devices									
2. Code	EMSRIN402A									
3. Range	Assist in formulating installation procedures of propulsion devices when handling daily tasks related to ship installation or repairs, lead the work and implement frontline works management at shipyards									
4. Level	4									
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;">Know about technical data of propulsion devices and requirements for marine power</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> ◆ Master the meanings of the technical data for propulsion devices, including propulsion power, shaft power, transmission performance and hull performance ◆ Master different parameters of propulsion devices, including: <ul style="list-style-type: none"> • Knowledge of propeller • Thrust and torque coefficient ◆ Know about the requirements for marine power </td> </tr> <tr> <td style="vertical-align: top;">6.2</td> <td style="vertical-align: top;">Methods of propulsion devices assembly supervision</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> ◆ Estimate ship resistance and effective power by using data chart/manual ◆ Evaluate the mutual effect of the ship and propeller ◆ Make preparations for the disassembly, modification or assembly of propulsion device; assist in formulating working drawings ◆ Supervise the works according to performance requirements </td> </tr> <tr> <td style="vertical-align: top;">6.3</td> <td style="vertical-align: top;">Professionalism in propulsion devices assembly supervision</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> ◆ Verify the requirements of propulsion device drawings, including in-house guidelines, client requirements and manufacturer manuals ◆ Make decisions on assembly according to approved procedures, or standards and limitations recommended by installation manuals ◆ Organize installation procedures and coordinate the efforts according to actual situations </td> </tr> </table>	6.1	Know about technical data of propulsion devices and requirements for marine power	<ul style="list-style-type: none"> ◆ Master the meanings of the technical data for propulsion devices, including propulsion power, shaft power, transmission performance and hull performance ◆ Master different parameters of propulsion devices, including: <ul style="list-style-type: none"> • Knowledge of propeller • Thrust and torque coefficient ◆ Know about the requirements for marine power 	6.2	Methods of propulsion devices assembly supervision	<ul style="list-style-type: none"> ◆ Estimate ship resistance and effective power by using data chart/manual ◆ Evaluate the mutual effect of the ship and propeller ◆ Make preparations for the disassembly, modification or assembly of propulsion device; assist in formulating working drawings ◆ Supervise the works according to performance requirements 	6.3	Professionalism in propulsion devices assembly supervision	<ul style="list-style-type: none"> ◆ Verify the requirements of propulsion device drawings, including in-house guidelines, client requirements and manufacturer manuals ◆ Make decisions on assembly according to approved procedures, or standards and limitations recommended by installation manuals ◆ Organize installation procedures and coordinate the efforts according to actual situations
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7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> (i) Capable to supervise the progress of work, including correctly implementing assembly procedures, applying tools and instruments, recording data and working to the prescribed standards for assembly; and (ii) Capable to assess whether the ship assembly equipment meet the power requirements for propulsion devices.
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses basic knowledge of marine power and the competency of project supervision (such as: EMCUOM102A “Basic knowledge of electrical and mechanical services management” and EMSRDE301A “Basic calculations for ship design”).</p>