

1. Title	Install steam turbine units	
2. Code	EMPEIN311A	
3. Range	Install steam turbine units in general industrial plants, power plants or other places.	
4. Level	3	
5. Credits	9	
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Working principles of steam turbine units</p> <ul style="list-style-type: none"> <li>◆ Understand structure of the body of steam turbine such as <ul style="list-style-type: none"> <li>• Cylinder, nozzle, partition(stator blade ring)</li> <li>• Seal: through passage component steam seal, partition steam seal, shaft end steam seal, balance piston steam seal and shaft seal system</li> <li>• Blade and coupling</li> </ul> </li> <li>◆ Understand the installation, operational and technical requirements for steam turbine units</li> <li>◆ Understand technical quality requirements for steam turbine units</li> </ul> <p>6.2 Installation of steam turbine units</p> <ul style="list-style-type: none"> <li>◆ Follow the requirements of drawings for steam turbine unit equipment to perform general installation procedures such as <ul style="list-style-type: none"> <li>• Bolt-heating</li> <li>• Screw and unscrew the bolts</li> <li>• Install blades</li> <li>• Align couplings</li> <li>• Align gaps</li> </ul> </li> <li>◆ Analyze and assess the levelling data of steam turbine base</li> <li>◆ Follow the requirements of drawings to inspect and install bearings so as to meet the engineering requirements <ul style="list-style-type: none"> <li>• Measurement of sliding bearings, bushes, and tightened gaps</li> <li>• Engineering requirements and precautions for installation of thrust bearings</li> </ul> </li> <li>◆ Follow the requirements of drawings to carry out procedures and methods of installing equipment and components of steam turbine units so as to meet the engineering requirements <ul style="list-style-type: none"> <li>• Grinding and installation of steam turbine bedplate</li> <li>• Methods and precautions for assembling, installing and adjusting cylinder</li> <li>• Methods and workmanship of installing and adjusting partition, partition jacket, steam seal and steam seal jacket</li> <li>• Adjustment and centering of steam turbine rotor slope</li> <li>• Buckle cover of steam turbine</li> </ul> </li> </ul>	

	<p>6.3 Professionalism in installing steam turbine units</p> <ul style="list-style-type: none"> <li>◆ Install auxiliary system pipes</li> <li>◆ Install control oil and lubrication oil system</li> <li>◆ Use steam turbine testing and monitoring instruments properly</li> <li>◆ Follow the safety requirements for work, requirements of the codes of practice and manufacturer’s guidelines to install steam turbine units</li> <li>◆ Meet the requirements quality standards for the installation work</li> <li>◆ Adjust the components to appropriate catenary construction according to the actual status of operation</li> </ul>
<p>7. Assessment Criteria</p>	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> <li>(i) Capable to install steam turbine units;</li> <li>(ii) Capable to use measuring instruments correctly to install steam turbine units; and</li> <li>(iii) Capable to complete simple reports on the installation of steam turbine units.</li> </ul>
<p>8. Remarks</p>	<p>The credit value of this unit of competency is set on the presumption that the person already possesses basic mechanical knowledge, techniques of installation and instrument application, and the competency of EMPEIN209A “Basic installation of steam turbine mechanical equipment”.</p>