

1. Title	Inspect, test and commission the pneumatic system equipment of trains
2. Code	EMRAIT404A
3. Range	Perform visual inspection, function test, pressure and leak tests, and measure, adjust and set the pneumatic systems of trains for train installation work according to guidelines and standards for inspection, testing and commissioning.
4. Level	4
5. Credits	6
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Working principles of and standards for inspecting, testing and commissioning the pneumatic system equipment of trains</p> <ul style="list-style-type: none"> <li>◆ Understand the structure and working principles of the pneumatic system equipment of trains, including: <ul style="list-style-type: none"> <li>• Air compressor unit</li> <li>• Air pipe network</li> <li>• Valve and pressure regulator</li> <li>• Pressure gauge</li> <li>• Pneumatic-operated equipment</li> <li>• Equipment to maintain the compressed air quality</li> </ul> </li> <li>◆ Understand the scope and standards for inspection, testing and commissioning of the pneumatic system equipment of trains</li> </ul> <p>6.2 Methods and procedures of inspecting, testing and commissioning the pneumatic system equipment of trains</p> <ul style="list-style-type: none"> <li>◆ Able to read the inspection, testing and commissioning guidelines and select useful information</li> <li>◆ Calculate and compile the details for testing and commissioning according to relevant information</li> <li>◆ Inspect, test and commission the pneumatic system equipment of trains and controlling and protecting devices according to guidelines and standards</li> <li>◆ Perform pressure and leak tests for the entire pneumatic system according to guidelines and standards</li> <li>◆ Use general electrical and mechanical and pneumatic equipment repairing and testing instruments and tools efficiently</li> </ul> <p>6.3 Professionalism in inspecting, testing and commissioning the pneumatic system equipment of trains</p> <ul style="list-style-type: none"> <li>◆ Inspect, test and commission the pneumatic system equipment of trains according to the standards and requirements for work safety, health, environmental protection and quality management of railway works</li> <li>◆ Understand the safety guidelines as required by the law and codes of practice in inspecting, testing and commissioning the pneumatic system equipment of trains</li> </ul>

7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency is:</p> <ul style="list-style-type: none"> <li>(i) Capable to inspect and test efficiently the air compressors of trains and test and set the circuit and pneumatic protection devices according to the standards; and</li> <li>(ii) Capable to perform pressure and leak tests efficiently for the entire pneumatic system according to the standards.</li> </ul>
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses knowledge of electrical and mechanical engineering and pneumatic equipment.</p>