

1. Title	Repair diesel engines
2. Code	EMCUMA203A
3. Range	Use typical or tailor-made mechanical tools to repair or maintain diesel engines at servicing workshops or locations with diesel engines according to servicing instructions and standards. This unit of competency is applicable to diesel engines of 2000kW or below.
4. Level	2
5. Credits	4
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Structure and basic working principles of diesel engine</p> <ul style="list-style-type: none"> <li>◆ Understand the structure and basic working principles of various component systems of a diesel engine, including: <ul style="list-style-type: none"> <li>• The working principles of a diesel engine - suction, compression, power and exhaust</li> <li>• Engine cylinder and its mechanical devices</li> <li>• Fuel supply system</li> <li>• Fuel injector and fuel filter</li> <li>• Governor and its control devices</li> <li>• Supercharger and turbo-charger</li> <li>• Cooling system and equipment</li> <li>• Lubrication system and equipment</li> </ul> </li> </ul> <p>6.2 Methods and procedures of servicing diesel engines</p> <ul style="list-style-type: none"> <li>◆ Capable to assemble, dismantle, and align the mechanical jointing of a diesel engine and its loading equipment</li> <li>◆ Capable to service various component systems and fittings of a diesel engine effectively, including checking, cleaning, measurement, maintenance and commissioning, according to servicing instructions and standards</li> <li>◆ Capable to use common and tailor-made mechanical tools effectively</li> </ul> <p>6.3 Professionalism in diesel engine repair and maintenance</p> <ul style="list-style-type: none"> <li>◆ Capable to perform general repair and maintenance of diesel engines according to servicing instructions and standards</li> <li>◆ Understand the legal requirements on work safety and the code of practice when performing repair and maintenance of diesel engines</li> </ul>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency is:</p> <p>(i) Capable to check and maintain the core systems of a diesel engine effectively and correctly according to servicing guidelines and standards; and</p> <p>(ii) Capable to commission various components of a diesel engine effectively.</p>
8. Remarks	The credit value of this unit of competency is set on the presumption that the person already possesses basic knowledge of servicing mechanical equipment.