

1. Title	Overhaul lift traction machines
2. Code	EMLEOR312A
3. Range	Arrange and implement overhauls of lift traction machines at field locations.
4. Level	3
5. Credit	3
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Structure and working principles of lift traction machines</p> <ul style="list-style-type: none"> <li>◆ Understand the structure and working principles of different kinds of traction motor including: <ul style="list-style-type: none"> <li>• 3-phase AC induction motor</li> <li>• 3-phase AC slip-ring induction motor</li> <li>• 3-phase AC permanent-magnet motor</li> <li>• shunt DC motor</li> <li>• separate exciter DC motor</li> </ul> </li> <li>◆ Understand the structure and working principles of different kinds of traction machine including: <ul style="list-style-type: none"> <li>• worm reduction gear traction machine</li> <li>• helical gear traction machine</li> <li>• gearless traction machine</li> </ul> </li> </ul> <p>6.2 overhaul methods and procedures for traction machines</p> <ul style="list-style-type: none"> <li>◆ Formulate overhaul procedure lists for different kinds of traction machine, including: <ul style="list-style-type: none"> <li>• selecting different kinds of suitable lifting gear</li> <li>• formulating work procedure lists for different kinds of lift car</li> <li>• formulating lifting procedure lists for different kinds of traction machine</li> <li>• Effectively use different lifting gears to implement and assign full lifting work for different kinds of lift car including <ul style="list-style-type: none"> <li>• safety preparation works for shutdown</li> <li>• safety lifting the cars of single wrap with roping 1:1 and 2:1</li> <li>• safety lifting the cars of double wrap with roping 1:1 and 2:1</li> <li>• safe works of resumption operation</li> </ul> </li> </ul> </li> <li>◆ Effectively use different lifting gears to implement and assign completed lifting work for traction machines</li> <li>◆ Effectively use different tools to implement and assign completed disassembly and assembly work for traction machines</li> </ul>

	<p>6.3 Professionalism in full disassembly and assembly of traction machines</p> <ul style="list-style-type: none"> <li>◆ Apply manufacturer’s repair instructions and the code of practice for lift work safety to implement and assign completed disassembly and assembly work for traction machines</li> <li>◆ Apply manufacturer’s repair instructions and the code of practice for lift design and construction to implement and assign completed adjustment and testing work for traction machines including: <ul style="list-style-type: none"> <li>• 3-phase AC and DC worm reduction gear traction machine</li> <li>• 3-phase AC helical gear traction machine</li> <li>• 3-phase AC and DC gearless traction machine</li> </ul> </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 arrange and assign completed inspection, disassembly, assembly and adjustment procedures for different kinds of lift traction machine systematically and through effective communication; and</li> <li>(ii) Capable to implement completed inspection, disassembly, assembly and adjustment of different kinds of lift traction machine under general or complicated situations in compliance with the prescribed standards of repair.</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 knowledge and skills in overhauling general lift traction machines.</p>