

1. Title	Repair basic components of grab unloaders									
2. Code	EMPERM305A									
3. Range	Perform repair for general basic components (wire drum, sheave, rack and pinion, cable reel, and weighing system) of grab unloaders in general industrial plants, power plants or other places.									
4. Level	3									
5. Credits	6									
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;">Design and operating principle of grab unloaders</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>◆ Understand the design and operating principle of the main components of grab unloaders such as sheave and wire rope, opening and closing and elevating and descending of bulk material clamps, travelling crane, cross rail, conveyor belt, cable reel, magnetic grab, weighing scale, etc</li> <li>◆ Understand the controlling principle for grab unloaders</li> </ul> </td> </tr> <tr> <td style="vertical-align: top;">6.2</td> <td style="vertical-align: top;">Common faults of basic components of grab unloaders</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>◆ Understand the common faults and their causes of basic components according to drawings and work experience</li> <li>◆ Formulate repair plans for faulty components and related safety guidelines</li> </ul> </td> </tr> <tr> <td style="vertical-align: top;">6.3</td> <td style="vertical-align: top;">Professionalism in repairing faulty components of grab unloaders</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> <li>◆ Arrange spare and materials necessary for the repair</li> <li>◆ Arrange suitable trades and number of workers for the repair</li> <li>◆ Use appropriate tools to assist repair</li> <li>◆ Work out and perform quality inspection in the process of repair</li> <li>◆ Perform testing after the repair</li> </ul> </td> </tr> </table>	6.1	Design and operating principle of grab unloaders	<ul style="list-style-type: none"> <li>◆ Understand the design and operating principle of the main components of grab unloaders such as sheave and wire rope, opening and closing and elevating and descending of bulk material clamps, travelling crane, cross rail, conveyor belt, cable reel, magnetic grab, weighing scale, etc</li> <li>◆ Understand the controlling principle for grab unloaders</li> </ul>	6.2	Common faults of basic components of grab unloaders	<ul style="list-style-type: none"> <li>◆ Understand the common faults and their causes of basic components according to drawings and work experience</li> <li>◆ Formulate repair plans for faulty components and related safety guidelines</li> </ul>	6.3	Professionalism in repairing faulty components of grab unloaders	<ul style="list-style-type: none"> <li>◆ Arrange spare and materials necessary for the repair</li> <li>◆ Arrange suitable trades and number of workers for the repair</li> <li>◆ Use appropriate tools to assist repair</li> <li>◆ Work out and perform quality inspection in the process of repair</li> <li>◆ Perform testing after the repair</li> </ul>
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7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Capable to understand the design and operating principle of grab unloader components;</p> <p>(ii) Capable to understand the common faults of basic components of grab unloaders; and</p> <p>(iii) Capable to complete the repair of faulty components of grab unloaders independently.</p>									
8. Remarks	The credit value of this unit of competency is set on the presumption that the person already possesses general bench fitting techniques and elementary mechanical knowledge.									