

1. Title	Repair centrifugal air compressors									
2. Code	EMPERM212A									
3. Range	Perform routine repair for centrifugal air compressors in general industrial plants, power plants or other places.									
4. Level	2									
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;">Structure and basic working principles of centrifugal air compressors</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> ◆ Understand the structure and basic working principles of general centrifugal air compressors, including impeller, pressure expansion device, reflux device, cylinder front and rear axle seal, interstage seal, impeller inlet seal, axial balance disc and bearing system, lubrication system, intermediate cooling system, etc. </td> </tr> <tr> <td style="vertical-align: top;">6.2</td> <td style="vertical-align: top;">Methods and procedures of repairing centrifugal air compressors</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> ◆ Understand the need and principles of scheduled repair and maintenance of general centrifugal air compressors, including inspecting, maintaining and testing them ◆ Use repair and testing instruments and tools properly </td> </tr> <tr> <td style="vertical-align: top;">6.3</td> <td style="vertical-align: top;">Professionalism in repairing centrifugal air compressors</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> ◆ Follow the requirements of practical guidelines and manufacturer's repair guidelines to perform repair of centrifugal air compressors </td> </tr> </table>	6.1	Structure and basic working principles of centrifugal air compressors	<ul style="list-style-type: none"> ◆ Understand the structure and basic working principles of general centrifugal air compressors, including impeller, pressure expansion device, reflux device, cylinder front and rear axle seal, interstage seal, impeller inlet seal, axial balance disc and bearing system, lubrication system, intermediate cooling system, etc. 	6.2	Methods and procedures of repairing centrifugal air compressors	<ul style="list-style-type: none"> ◆ Understand the need and principles of scheduled repair and maintenance of general centrifugal air compressors, including inspecting, maintaining and testing them ◆ Use repair and testing instruments and tools properly 	6.3	Professionalism in repairing centrifugal air compressors	<ul style="list-style-type: none"> ◆ Follow the requirements of practical guidelines and manufacturer's repair guidelines to perform repair of centrifugal air compressors
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7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Capable to perform routine repair for centrifugal air compressors under instruction and according to guidelines;</p> <p>(ii) Capable to report the status of operation of centrifugal air compressors; and</p> <p>(iii) Capable to complete repair report forms for the centrifugal air compressors.</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.									