

1. Title	Inspect moving parts of steam turbines										
2. Code	EMPEIT304A										
3. Range	Perform inspection for moving parts of steam turbines 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;">Causes of damage of moving parts of steam turbines</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> ◆ Know about the common causes of the damage of steam turbine rotor blade wheel ◆ Know about the causes of blade damage </td> </tr> <tr> <td style="vertical-align: top;">6.2</td> <td style="vertical-align: top;">Inspection of moving parts of steam turbines</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> ◆ Measure rotor vibration level ◆ Measure rotor slope ◆ Measure and calculate the offsetting of steam turbine rotor parts ◆ Inspect the blade <ul style="list-style-type: none"> • Cracks • Lacing wire seal-off, breakage, washout and corrosion • Surface washout, corrosion and wearing • Scaling ◆ Measure the sinking of rotor journal with bridge gauge ◆ Inspect packaged rigid coupling ◆ Carry out major items of turbine rotor inspection ◆ Measure the vibration level and curving of rotor ◆ Perform procedures and workmanship of inspecting spiral rod jigger ◆ Perform procedures and workmanship of inspecting swing gear jigger </td> </tr> <tr> <td style="vertical-align: top;">6.3</td> <td style="vertical-align: top;">Quality standards for inspecting moving parts of steam turbines</td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> ◆ Follow the manufacturer's quality standards to perform inspection independently for the following parts: <ul style="list-style-type: none"> • Steam turbine rotor • spiral rod turning gear • swing gear turning gear </td> </tr> </table>		6.1	Causes of damage of moving parts of steam turbines	<ul style="list-style-type: none"> ◆ Know about the common causes of the damage of steam turbine rotor blade wheel ◆ Know about the causes of blade damage 	6.2	Inspection of moving parts of steam turbines	<ul style="list-style-type: none"> ◆ Measure rotor vibration level ◆ Measure rotor slope ◆ Measure and calculate the offsetting of steam turbine rotor parts ◆ Inspect the blade <ul style="list-style-type: none"> • Cracks • Lacing wire seal-off, breakage, washout and corrosion • Surface washout, corrosion and wearing • Scaling ◆ Measure the sinking of rotor journal with bridge gauge ◆ Inspect packaged rigid coupling ◆ Carry out major items of turbine rotor inspection ◆ Measure the vibration level and curving of rotor ◆ Perform procedures and workmanship of inspecting spiral rod jigger ◆ Perform procedures and workmanship of inspecting swing gear jigger 	6.3	Quality standards for inspecting moving parts of steam turbines	<ul style="list-style-type: none"> ◆ Follow the manufacturer's quality standards to perform inspection independently for the following parts: <ul style="list-style-type: none"> • Steam turbine rotor • spiral rod turning gear • swing gear turning gear
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7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> (i) Capable to find out the causes of the damage of moving parts of steam turbines; (ii) Capable to inspect the moving parts of steam turbines independently; (iii) Capable to analyze the quality standards for inspecting the moving parts of steam turbines; and (iv) Capable to complete simple reports on the inspection of the moving parts of steam turbines.
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses basic mechanical knowledge and is familiar with the operation and use of various types of testing equipment and tools.</p>