

1. Title	Aeronautical component parts repairing and fabricating by brazing and soldering
2. Code	EMAMWS459A
3. Range	Fabrication or repair of aeronautical component parts in an aircraft hangar or workshop during the aircraft non-flight time. This is carried out on site in aircraft or in a laboratory/workshop environment.
4. Level	4
5. Credit	6
6. Competency	<p style="text-align: center;"><u>Performance Requirement</u></p> <p>6.1 Knowledge</p> <ul style="list-style-type: none"> <li>◆ Understand the principles concerning soldering and brazing, including : <ul style="list-style-type: none"> <li>• uses and application of soldering and brazing</li> <li>• soldering and brazing methods</li> </ul> </li> </ul> <p>6.2 Methods and procedures</p> <ul style="list-style-type: none"> <li>◆ Able to confirm the component identity with documentation by comparing serial and part numbers.</li> <li>◆ Able to establish and document the task in accordance with the procedures.</li> <li>◆ Able to make preparation for the work area and obtain the resources in accordance with the procedures, e.g. publications, materials, tooling, equipment, safety equipment, environmental conditions</li> <li>◆ Able to execute soldering effectively to join aeronautical component in fabrication or repair work <ul style="list-style-type: none"> <li>• suitable temperature</li> <li>• suitable time</li> <li>• suitable additives</li> <li>• suitable soldering iron tip</li> <li>• suitable handling of components</li> </ul> </li> </ul>

6.3 Professional approach

- ◆ Able to execute brazing effectively to join aeronautical component in fabrication or repair work
- ◆ Able to make preparation for equipment in accordance with the procedures, e.g. set up, made safe to work on, guards, isolation procedures, protective equipment.
- ◆ Able to maintain equipment in accordance with the procedures.
- ◆ Able to plan and verify the sequence of operations in accordance with the procedures.
- ◆ Able to solder or braze the component in accordance with the procedures.
- ◆ Able to measure and check the component for conformity with specifications, e.g. dimensional and angular accuracy, profile, surface finish, mis-match of cuts.
- ◆ Able to report, record and rectify the defects in accordance with the procedures
- ◆ Able to understand the legislative requirements, aviation authority requirements, manufacturers' publications and the maintenance organizations' approved maintenance practices and requirements in carrying out the task.
- ◆ Able to complete the task within the stipulated duration.
- ◆ Able to solder and braze the components which can function according to their specifications.
- ◆ Able to prepare the components for use, storage or transit in accordance with the procedures, e.g. surface protection, packing.

	<ul style="list-style-type: none"> <li>◆ Able to complete the documentation in accordance with the procedures, e.g. labels, work cards, release notes, certification.</li> <li>◆ Able to clean, prepare and store the tools and equipment for future use in accordance with the procedures.</li> <li>◆ Able to handle the hazardous waste materials in accordance with the procedures.</li> <li>◆ Able to leave the work area in a condition enabling next task to begin, in accordance with the procedures</li> </ul>
7. Assessment Criteria	<p>The integral outcome requirements of this UoC are:</p> <ul style="list-style-type: none"> <li>(i) Able to fabricate or repair aeronautical component by soldering and brazing.</li> <li>(ii) Able to clearly explain the soldering and brazing process.</li> <li>(iii) Able to prepare reports to record the soldering and brazing process.</li> </ul>
8. Remarks	<p>(Ref: HKAR-66 Module 6.1-6.3 &amp; 7.15)</p> <p>The Credit in this UoC is on the assumption of the person already possessed basic knowledge in soldering.</p> <p>Ref: NZQA - 4026</p>