

1. Title	Aircraft reciprocating engine fuel system components repair and/or overhaul
2. Code	EMAMWS448A
3. Range	The repair and/or overhaul activity is usually carried out in a specialist bay or workshop, e.g. pumps (engine driven), fuel distribution manifold, filters, carburetors (float and pressure), fuel injectors or nozzles. This unit standard covers fuel system engine mounted components.
4. Level	4
5. Credit	9
6. Competency	<p style="text-align: center;"><u>Performance Requirement</u></p> <p>6.1 Working principles</p> <ul style="list-style-type: none"> ◆ Understand the working principles for the fuel systems of piston engines, including : <ul style="list-style-type: none"> • operation of carburetors and fuel injection systems • lay-out of the systems and their components <p>6.2 Methods and procedures</p> <ul style="list-style-type: none"> ◆ Able to review the maintenance documents and procedures to decide on maintenance task, e.g. confirm fault, repair, overhaul, modify. ◆ Able to make preparation for the work area and obtain and check the resources in accordance with the procedures, e.g. publications, materials, tools, equipment, safety equipment, environmental conditions established. ◆ Able to confirm the component identity with documentation.

- ◆ Able to make preparation for the combustion section for repair and/or overhaul in accordance with the procedures, e.g. clean, inspect, assess economics of carrying out repair or overhaul.
- ◆ Able to determine and record the next task in accordance with the procedures, e.g. locate defects, repair, overhaul, test, adjust, complete the task.
- ◆ Able to locate defects using troubleshooting techniques appropriate to the defects indications in accordance with the procedures.
- ◆ Able to report and record defects found during troubleshooting in accordance with the procedures.
- ◆ Able to disassemble the component in accordance with the procedures, e.g. clean, label, preserve, segregate.
- ◆ Able to determine and record the rectification action in accordance with the procedures.
- ◆ Able to report and record the defects found during disassembly in accordance with the procedures, e.g. inspect, use standards, specifications, precision measuring equipment.
- ◆ Able to procure the spare parts and verify their authenticity and serviceability in accordance with the procedures, e.g. identify, inspect.
- ◆ Able to rectify the defects in accordance with the procedures, e.g. repair, replace, modify, adjust.

6.3 Professional approach

- ◆ Able to assemble the component in accordance with the procedures.
- ◆ Able to perform inspections in accordance with the procedures.
- ◆ Able to prepare the component for test in accordance with the procedures.
- ◆ Able to test and adjust the component in accordance with the procedures, e.g. troubleshoot, functionally test, calibrate, adjust, document adjustments and performance.
- ◆ Able to perform inspections after the test 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 prepare the component for use, storage or transit in accordance with the procedures, e.g. locking, inhibiting, blanking, packing
- ◆ Able to check the resources for serviceability and returned to service or storage in accordance with the procedures, e.g. tools, equipment, safety equipment, publications.
- ◆ Able to handle the unused parts and materials in accordance with the procedures, e.g. serviceable, unserviceable, surplus, waste, scrap, hazardous.

	<ul style="list-style-type: none"> ◆ Able to complete the documentation in accordance with the procedures. ◆ Able to leave the work area in a state which enables the next task to begin in accordance with the procedures.
7. Assessment Criteria	<p>The integral outcome requirement of this UoC are:</p> <ul style="list-style-type: none"> (i) Able to make preparation for the repair and/or overhaul of aircraft reciprocating engine fuel system components. (ii) Able locate the defects. (iii) Able to repair and/or overhaul the components. (iv) Able to test and adjust the components. (v) Able to complete all the requirements associated with the task.
8. Remarks	<p>(Ref: HKAR-66 Module 16.4)</p> <p>The Credit in this UoC is on the assumption of the person already possessed foundation knowledge in the constructional arrangement and operation of reciprocating engines.</p> <p>Ref: NZQA - 3416</p>