

1. Title	Aircraft reciprocating engines repair and/or overhaul
2. Code	EMAMWS452A
3. Range	The repair and/or overhaul activity is usually carried out in a specialist bay or workshop, e.g. crank cases, crankshafts, piston and connecting rods, valves and valve timing components, lubrication system components, intake and exhaust system components.
4. Level	4
5. Credit	9
6. Competency	<p style="text-align: center;"><u>Performance Requirement</u></p> <p>6.1 Preparation</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 confirm the component identity with documentation. ◆ 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 prepare the component 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.

	<p>6.2 Methods and procedures</p>	<ul style="list-style-type: none"> ◆ Able to locate the defects using troubleshooting techniques appropriate to the defects indications in accordance with the procedures. ◆ Able to report and record the 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 report and record the defects found during disassembly in accordance with the procedures,e.g. inspect, use standards, specifications, precision measuring equipment. ◆ Able to determine and record the rectification action in accordance with the procedures. ◆ 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. ◆ Able to assemble the component in accordance with the procedures. ◆ Able to perform inspections in accordance with the procedures.
	<p>6.3 Test and adjustment</p>	<ul style="list-style-type: none"> ◆ Able to prepare the component for test in accordance with the procedures.

6.4 Professional approach

- ◆ 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 the inspections 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 prepare the component for use, storage or transit in accordance with the procedures, e.g. locking, inhibiting, blanking, packing.
- ◆ Able to complete the task within the stipulated duration.
- ◆ Able to check the resources for serviceability and return them 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.
- ◆ Able to complete the documentation in accordance with the procedures.
- ◆ Able to return the work area in a state which enables the next task to begin in accordance with the procedures.

7. Assessment Criteria	The integral outcome requirement of this UoC are: <ul style="list-style-type: none">(i) Able to make preparation for the repair and/or overhaul of aircraft reciprocating engines.(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	Ref: NZQA - 3420