

1. Title	Aircraft gearboxes and transmissions repair and/or overhaul
2. Code	EMAMWS450A
3. Range	The repair and/or overhaul activity is usually carried out in a specialist bay or workshop,e.g. gear trains, cases/housings, oil pumps, valves, filters, drive shafts and couplings.
4. Level	4
5. Credit	9
6. Competency	<p style="text-align: center;"><u>Performance Requirement</u></p> <p>6.1 Knowledge</p> <ul style="list-style-type: none"> ◆ Understand the operating principles and applications of different transmission systems, including : <ul style="list-style-type: none"> • gears : gear ratios, mesh patterns • belts and pulleys : tension and construction of different types e.g. flat belts and power belts • chains and sprockets : tooth profile • screw jacks, lever devices and push-pull rod systems <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 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.

- | | |
|--|--|
| | <ul style="list-style-type: none">◆ 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.◆ 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 determine and record the rectification action 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 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. |
|--|--|

	<p data-bbox="371 465 619 555">6.3 Test and adjustment</p> <ul style="list-style-type: none"> <li data-bbox="735 241 1484 331">◆ Able to assemble the component in accordance with the procedures. <li data-bbox="735 349 1484 439">◆ Able to perform inspections in accordance with the procedures. <li data-bbox="735 465 1484 555">◆ Able to prepare the component for test in accordance with the procedures. <li data-bbox="735 573 1484 819">◆ Able to test and adjust the component in accordance with the procedures, e.g. troubleshoot, functionally test, calibrate, adjust, document adjustments and performance. <li data-bbox="735 837 1484 927">◆ Able to perform the inspections in accordance with the procedures. <p data-bbox="371 958 639 1048">6.4 Professional approach</p> <ul style="list-style-type: none"> <li data-bbox="735 958 1484 1263">◆ 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. <li data-bbox="735 1281 1484 1370">◆ Able to complete the task within the stipulated duration. <li data-bbox="735 1388 1484 1585">◆ Able to prepare the component for use, storage or transit in accordance with the procedures, e.g. locking, inhibiting, blanking, packing. <li data-bbox="735 1603 1484 1800">◆ 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.
--	---

	<ul style="list-style-type: none"> ◆ 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.
<p>7. Assessment Criteria</p>	<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 gearbox and transmission 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.
<p>8. Remarks</p>	<p>(Ref: HKAR-66 Module 6.9 & 7.12)</p> <p>The Credit in this UoC is on the assumption of the person already possessed basic knowledge in the manipulation of common tools.</p> <p>Ref: NZQA - 3418</p>