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| 1. Title | Ground run propeller driven piston engines over 300 horsepower (hp) or equivalent |
| 2. Code | EMAMBA502A |
| 3. Range | <p>Ground run propeller driven piston engines over 300 horsepower (hp) or equivalent are usually carried out outside an aircraft hangar during the aircraft grounded time.</p> <p>Approval to ground run specific aircraft and engine types is obtained from the responsible authority for maintaining the engine.</p> <p>This UoC covers generic procedures for ground running aircraft engines, e.g. reciprocating engine, single and/or multi engine (examples are - Mustang, C-130 Hercules, Beech 1900).</p> <p>Foreign object Damage (FOD) stand for anything that can find its way into an aircraft engine or flight control mechanisms that could possibly cause damage to aircraft, equipment or people.</p> |
| 4. Level | 5 |
| 5. Credit | 9 |
| 6. Competency | <p style="text-align: center;"><u>Performance Requirement</u></p> <p>6.1 Knowledge ♦ Understand the working principle of the propeller driven piston engines.</p> <p>6.2 Methods and procedures ♦ Able to determine the ground run task is by reviewing maintenance documentation.</p> <p style="padding-left: 150px;">♦ Able to confirm the aircraft is matched with the registration and documentation.</p> <p style="padding-left: 150px;">♦ Able to obtain the resources and check them for serviceability or status in accordance with the procedures, e.g. tools, equipment, safety equipment, publications, materials.</p> |

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| | <ul style="list-style-type: none">◆ Able to prepare the aircraft for engine start in accordance with the procedures, e.g. fuel load and location. blanks, locks, chocks, covers, screens. special equipment and safety equipment removed, fitted and positioned as necessary. engine start equipment and aircraft positioned in approved area, area checked for FOD before starting.◆ Able to obtain the environmental data in accordance with the procedures, e.g. barometric pressure, outside air temperature, wind speed and direction, humidity.◆ Able to assemble and position the ground run team in accordance with the procedures.◆ Able to obtain the engine start and ground run clearances in accordance with the procedures, e.g. from ground crew and/or from control tower.◆ Able to start, run and shut down the engine or engines to meet the determined task requirements or specifications in accordance with the procedures.◆ Able to record the engine performance parameters in accordance with the procedures.◆ Able to complete the post ground run checks in accordance with the procedures. |
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| | <p>6.3 Professional approach</p> <ul style="list-style-type: none"> ◆ 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 follow instruction manuals to carry out engine ground run. ◆ Able to prepare the aircraft for next maintenance task or for operation in accordance with the procedures. ◆ Able to complete the task in the work area in accordance with the procedures, e.g. tool control, cleanliness, tidiness, return of publications, preparation for next activity. ◆ Able to check the resources are for serviceability and return them to service or storage in accordance with the procedures, e.g. tools, equipment, safety equipment. ◆ Able to complete the ground run documentation 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 ground run of propeller driven piston engines over 300 hp or equivalent. (ii) Able to carry out the engine ground run. (iii) Able to complete all the requirements associated with the task. |
| <p>8. Remarks</p> | <p>Ref: NZQA - 23166</p> |