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| <b>Title</b> | <b>Ground run propeller driven aircraft engines up to 300 horsepower or equivalent</b> |                |          |
| <b>Level</b> | <b>4</b>   | <b>Credits</b> | <b>5</b> |

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| <b>Purpose</b> | People credited with this unit standard are able to: prepare to ground run propeller driven aircraft engines up to 300 hp or equivalent; carry out engine ground run; and complete activities related to the ground run task. |
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| <b>Classification</b> | Aeronautical Engineering > Aircraft Servicing |
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| <b>Available grade</b> | Achieved |
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### Guidance Information

- All tasks must be carried out in accordance with enterprise procedures.
- Definitions**  
*Enterprise procedures* – procedures used by the organisation carrying out the work and applicable to the tasks being carried out. Examples are – standard operating procedures, safety procedures, equipment operating procedures, codes of practice, quality management practices and standards, procedures to comply with legislative and local body requirements.  
*FOD* – foreign object debris which is anything that can find its way into an aircraft engine or flight control mechanisms that could possibly cause damage to aircraft, equipment, or people.
- Approval to ground run specific aircraft and engine types is obtained from the enterprise responsible for maintaining the engine.
- This unit standard covers generic procedures for ground running aircraft engines.
- Propeller driven aircraft engines include reciprocating and/or gas turbine; single and/or multi engine, e.g. Tomahawk, Seneca, Nomad.
- The scope of the system that this standard relates to is described in the applicable chapters of ATA iSpec 2200.

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### Outcomes and performance criteria

#### Outcome 1

Prepare to ground run propeller driven aircraft engines up to 300 horsepower (hp) or equivalent.

**Performance criteria**

- 1.1 Ground run task is determined by reviewing maintenance documentation and enterprise procedures.
- 1.2 Resources are obtained and checked for serviceability or status.
- Range may include but is not limited to – publications, tools, equipment, safety equipment, materials.
- 1.3 Aircraft registration is matched with documentation.
- 1.4 Aircraft is prepared for engine start.
- Range may include but is not limited to – 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.
- 1.5 Environmental data is obtained.
- Range may include but is not limited to – barometric pressure, outside air temperature, wind speed and direction, humidity.
- 1.6 Ground run team is assembled and positioned.

**Outcome 2**

Carry out engine ground run.

**Performance criteria**

- 2.1 Engine start and ground run clearances are obtained.
- Range from ground crew and/or from control tower.
- 2.2 Engine or engines are started, run, and shut down to meet the determined task requirements or specifications.
- 2.3 Engine performance parameters are recorded.
- 2.4 Post ground run checks are completed.

**Outcome 3**

Complete activities related to the ground run task.

**Performance criteria**

- 3.1 Aircraft is prepared for next maintenance task or for operation.

- 3.2 Completion activities specific to the task and work area are carried out.
- Range may include but are not limited to – tool control, cleanliness, tidiness, return of publications, preparation for next activity.
- 3.3 Resources are checked for serviceability and returned to service or storage.
- Range may include but is not limited to – tools, equipment, safety equipment.
- 3.4 Ground run documentation is completed.

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| <b>Replacement information</b> | This unit standard, unit standard 23166, and unit standard 23167, replaced unit standard 3905. |
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| <b>Planned review date</b> | 31 December 2027 |
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#### Status information and last date for assessment for superseded versions

| Process               | Version | Date              | Last Date for Assessment |
|-----------------------|---------|-------------------|--------------------------|
| Registration          | 1       | 25 September 2006 | 31 December 2016         |
| Review                | 2       | 18 June 2014      | 31 December 2021         |
| Review                | 3       | 26 March 2020     | N/A                      |
| Rollover and Revision | 4       | 26 April 2024     | N/A                      |

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| <b>Consent and Moderation Requirements (CMR) reference</b> | 0028 |
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

#### Comments on this unit standard

Please contact Ringa Hora Services Workforce Development Council [qualifications@ringahora.nz](mailto:qualifications@ringahora.nz) if you wish to suggest changes to the content of this unit standard.