

Title	Maintain aircraft reciprocating powerplants		
Level	4	Credits	20

Purpose	People credited with this unit standard are able to: prepare to maintain aircraft reciprocating powerplants; locate defects in aircraft reciprocating powerplants; restore airworthiness of aircraft reciprocating powerplants; and complete finishing activities related to maintaining aircraft reciprocating powerplants.
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Classification	Aeronautical Engineering > Aircraft Powerplant Maintenance
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Available grade	Achieved
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Guidance Information

- 1 All tasks must be carried out in accordance with enterprise procedures.
- 2 Definition
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.
- 3 This unit standard excludes engine running and testing.
- 4 The maintenance activities referred to in this unit standard are those normally carried out on an aircraft in a hangar.
- 5 The scope of the system that this standard relates to is described in ATA 2200, chapter 72(R).

Outcomes and performance criteria

Outcome 1

Prepare to maintain aircraft reciprocating powerplants.

Performance criteria

- 1.1 Task is determined by reviewing maintenance documentation and enterprise procedures.

- 1.2 Resources are obtained and checked for serviceability.
- Range may include but are not limited to – publications, tools, equipment, safety equipment, spare parts, materials.
- 1.3 Aircraft registration and powerplant to be maintained are matched with documentation.
- 1.4 Aircraft and powerplant are prepared for the application of power and operation.
- Range may include but is not limited to – cockpit controls match component positions, clearances, isolation tags, warning signs, other systems ready for the application of power, other personnel warned of power being applied, permission obtained to apply power.
- 1.5 Ground and/or support equipment is positioned ready for powerplant maintenance.

Outcome 2

Locate defects in aircraft reciprocating powerplants.

Performance criteria

- 2.1 Serviceability is determined.
- Range inspect, assess, test.
- 2.2 Defects are reported and documented.

Outcome 3

Restore airworthiness of aircraft reciprocating powerplants.

Performance criteria

- 3.1 Methods of rectifying defects are determined.
- 3.2 Replacement parts are procured and verified as authentic and serviceable.
- Range identify, inspect.
- 3.3 Defects are rectified.
- Range may include but is not limited to – repair, replace, modify, adjust, calibrate, lubricate.
- 3.4 Powerplants are assessed to verify serviceability.
- 3.5 Servicing activities required as a consequence of the maintenance activity are completed.

3.6 Inspections are obtained.

Outcome 4

Complete finishing activities related to maintaining aircraft reciprocating powerplants.

Performance criteria

4.1 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, systems and aircraft left ready for next activity.

4.2 Resources are checked for serviceability and returned to service or storage.

Range may include but are not limited to – tools, equipment, safety equipment.

4.3 Leftover parts and materials are disposed of.

Range may include but are not limited to – serviceable, unserviceable, surplus, waste, scrap, hazardous.

4.4 Documentation is completed.

Planned review date	31 December 2024
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	20 June 1995	31 December 2016
Revision	2	7 August 1997	31 December 2016
Revision	3	8 May 2001	31 December 2016
Review	4	20 April 2006	31 December 2016
Review	5	17 July 2014	31 December 2021
Review	6	26 March 2020	N/A

Consent and Moderation Requirements (CMR) reference	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 ServiceIQ qualifications@serviceiq.org.nz if you wish to suggest changes to the content of this unit standard.