

<b>Title</b>	<b>Test aircraft reciprocating powerplants on a test bed</b>		
<b>Level</b>	<b>5</b>	<b>Credits</b>	<b>6</b>

<b>Purpose</b>	People credited with this unit standard are able to: prepare aircraft reciprocating powerplants for testing on a test bed; test aircraft reciprocating powerplants; and complete finishing activities related to the testing tasks.
----------------	---

<b>Classification</b>	Aeronautical Engineering > Aircraft Powerplant Repair and Overhaul
-----------------------	--

<b>Available grade</b>	Achieved
------------------------	----------

---

### 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 can be assessed against using a fixed or a mobile test cell.
- 4 Evidence for performance criterion 2.5 may be gathered under simulated conditions.

---

### Outcomes and performance criteria

#### Outcome 1

Prepare aircraft reciprocating powerplants for testing on a test bed.

#### Performance criteria

- 1.1 Testing task is determined by reviewing maintenance documentation and enterprise procedures.
- 1.2 Powerplant identity is confirmed with documentation by comparing serial and part numbers.

- 1.3 Work area is prepared, and resources are obtained and checked for serviceability.
- Range may include but is not limited to – publications, materials, tools, test equipment, safety equipment, environmental conditions determined.
- 1.4 Powerplant is prepared for testing.
- Range may include but is not limited to – clean, inspect, install on test bed.

## Outcome 2

Test aircraft reciprocating powerplants.

### Performance criteria

- 2.1 Powerplant is tested and adjusted.
- Range may include but is not limited to – record data, evaluate data, determine adjustments, troubleshoot, functionally test, calibrate, adjust, document adjustments and performance.
- 2.2 Defects found during testing are reported and recorded.
- Range may include but is not limited to – vibrations, out of limits performance parameters, leaks.
- 2.3 Defects are rectified.
- Range may include but is not limited to – vibrations, out of limits performance parameters, leaks.
- 2.4 Inspections are obtained.
- 2.5 Action to be taken in abnormal and emergency occurrences is demonstrated.

## Outcome 3

Complete finishing activities related to the testing tasks.

### Performance criteria

- 3.1 Powerplant is prepared for use, storage, or transit.
- Range may include but is not limited to – lock, inhibit, blank, remove from test bed, prepare for transit.

- 3.2 Completion activities specific to the task and work area are carried out.
- Range may include but is 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 Leftover parts and materials are disposed of.
- Range may include but is not limited to – serviceable, unserviceable, surplus, waste, scrap, hazardous.
- 3.5 Documentation is completed.

<b>Replacement information</b>	This unit standard, unit standard 20636, unit standard 20637, and unit standard 23160 replaced unit standard 3425.
--------------------------------	--

<b>Planned review date</b>	31 December 2024
----------------------------	------------------

#### 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

<b>Consent and Moderation Requirements (CMR) reference</b>	0028
--	------

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](mailto:qualifications@serviceiq.org.nz) if you wish to suggest changes to the content of this unit standard.