

<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.
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<b>Classification</b>	Aeronautical Engineering > Aircraft Powerplant Repair and Overhaul
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<b>Available grade</b>	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 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.

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### 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.
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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	30 May 2024	N/A

<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.