

Title	Demonstrate knowledge of aircraft reciprocating powerplant repair and overhaul practices		
Level	4	Credits	5

Purpose	<p>This is a knowledge-based unit standard for people pursuing unit standards in the aircraft powerplant repair and overhaul domain.</p> <p>People credited with this unit standard are able to demonstrate knowledge of: aircraft propeller repair and overhaul practices; aircraft reciprocating engine repair and overhaul practices; aircraft gearbox and transmission repair and overhaul practices; and aircraft reciprocating powerplant handling practices.</p>
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Classification	Aeronautical Engineering > Aircraft Powerplant Repair and Overhaul
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Available grade	Achieved
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Guidance Information

- 1 All tasks must be carried out in accordance with the standards required by the aircraft or equipment manufacturer.
- 2 Standard practices referred to are those in the aviation industry, examples include Great Britain – Civil Aviation Authority, CAP 562: *Civil Aircraft Airworthiness Information and Procedures* (CAAIP) (London: TSO) and United States – Federal Aviation Administration, Advisory Circular 43.13-1B, *Acceptable Methods, Techniques, and Practices – Aircraft Inspection and Repair* (US Department of Transportation).
- 3 Repair and overhaul may include disassembly, assembly, inspection, troubleshooting, defect rectification, repair, balancing and testing;
Aircraft reciprocating powerplant includes propellers, reciprocating engines, aircraft gearboxes and transmissions.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of aircraft propeller repair and overhaul practices.

Range fixed and variable pitch propellers.

Performance criteria

- 1.1 Propellers are described in terms of type, function, construction, and operating principles.
- 1.2 Repair and overhaul of propellers are described in terms of standard practices.

Outcome 2

Demonstrate knowledge of aircraft reciprocating engine repair and overhaul practices.

Performance criteria

- 2.1 Reciprocating engines are described in terms of function, construction, and operating principles.
- 2.2 Repair and overhaul of reciprocating engines are described in terms of standard practices.

Outcome 3

Demonstrate knowledge of aircraft gearbox and transmission repair and overhaul practices.

Performance criteria

- 3.1 Gearboxes and transmissions are described in terms of purpose, function, construction, and operation.
- 3.2 Repair and overhaul of gearboxes and transmissions are described in terms of standard practices.

Outcome 4

Demonstrate knowledge of aircraft reciprocating powerplant handling practices.

Performance criteria

- 4.1 Procedures to prepare powerplant and powerplant components for storage and shipping are described in terms of standard practices.
- 4.2 Safety precautions for powerplant and powerplant component repair and overhaul activities are described in terms of standard practices.

Replacement information	This unit standard and unit standard 28137 replaced unit standard 7240.
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Planned review date	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	18 June 2014	31 December 2021
Review	2	26 March 2020	N/A
Rollover and Revision	3	30 May 2024	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 Ringa Hora Services Workforce Development Council qualifications@ringahora.nz if you wish to suggest changes to the content of this unit standard.