

<b>Title</b>	<b>Demonstrate knowledge of aircraft gas turbine powerplant repair and overhaul practices</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>5</b>

<b>Purpose</b>	<p>This is a knowledge-based unit standard for people pursuing 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 gas turbine engine repair and overhaul practices; aircraft gearbox and transmission repair and overhaul practices; and aircraft gas turbine powerplant handling practices.</p>
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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 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 gas turbine powerplant includes propellers, gas turbine engines, aircraft gearboxes and transmissions.
- 4 Credit for this unit standard may also be gained from tasks assessed on aero-derivative engines, and associated systems and components used for marine or industrial applications.

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## 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 gas turbine engine repair and overhaul practices.

#### Performance criteria

- 2.1        Gas turbine engines are described in terms of function, construction, and operating principles.
- 2.2        Repair and overhaul of gas turbine 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 gas turbine 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.

<b>Replacement information</b>	This unit standard and unit standard 28143 replaced unit standard 7240.
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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	18 June 2014	31 December 2021
Review	2	26 March 2020	N/A
Rollover and Revision	3	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.