

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

Purpose	<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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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, *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.

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 types, 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.
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Replacement information	This unit standard and unit standard 28143 replaced unit standard 7240.
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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	18 June 2014	31 December 2021
Review	2	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.