

Title	Disassemble and assemble launch vehicle propulsion systems		
Level	4	Credits	30

Purpose	People credited with this unit standard are able to: prepare to disassemble and assemble launch vehicle propulsion systems; disassemble launch vehicle propulsion systems; assemble launch vehicle propulsion systems; test and adjust launch vehicle propulsion systems; and complete finishing activities related to the disassembly and assembly of launch vehicle propulsion systems.
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Classification	Aeronautical Engineering > Aerospace Engineering
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Available grade	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 Disassembly and assembly activities are those usually carried out in a specialist bay or workshop.
- 4 Propulsion may include single main engine assembly, thrust chamber, pumps, motor controllers, mounting structure, attached avionic components, related plumbing, valves and wiring systems.

Outcomes and performance criteria

Outcome 1

Prepare to disassemble and assemble launch vehicle propulsion systems.

Performance criteria

- 1.1 Task is determined by reviewing maintenance documentation and manuals.
- 1.2 Launch vehicle propulsion systems 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, tools, equipment, safety equipment, safety devices fitted, hazard symbols displayed, environmental conditions established.
- 1.4 Support equipment is positioned.
- 1.5 Defects are reported and documented.
- 1.6 Next task is determined and documented.
- Range may include but is not limited to – locate defects, repair, overhaul, test, adjust, complete the task.

Outcome 2

Disassemble launch vehicle propulsion systems.

Performance criteria

- 2.1 Launch vehicle propulsion system is disassembled.
- Range clean, label, preserve, segregate, store.
- 2.2 Defects found during disassembly are reported and documented.
- 2.3 Inspections are obtained.

Outcome 3

Assemble launch vehicle propulsion systems.

Performance criteria

- 3.1 Equipment and personnel are earthed and/or bonded.
- 3.2 Launch vehicle propulsion systems are checked.
- Range may include but is not limited to – security and alignment of components, plugs, wires and safety devices fitted.
- 3.3 Launch vehicle propulsion systems are assembled.
- 3.4 Prepared launch vehicle propulsion systems are checked to prevent interference.
- 3.5 Inspections are obtained.

Outcome 4

Test and adjust launch vehicle propulsion systems.

Performance criteria

4.1 Launch vehicle propulsion systems are prepared for testing.

4.2 Launch vehicle propulsion systems are tested and adjusted.

Range may include but is not limited to – troubleshoot, functionally test, calibrate, adjust, document adjustments and performance.

4.3 Inspections are obtained.

Outcome 5

Complete finishing activities related to the disassembly and assembly of launch vehicle propulsion systems.

Performance criteria

5.1 Launch vehicle propulsion systems are prepared for use, storage, or transit.

Range may include but is not limited to – locking, inhibiting, blanking, packing.

5.2 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.

5.3 Resources are checked for serviceability and returned to service or storage.

Range may include but is not limited to – tools, equipment, safety equipment.

5.4 Leftover parts and materials are disposed of.

Range may include but is not limited to – serviceable, unserviceable, surplus, waste, scrap, hazardous.

5.5 Documentation is completed.

5.6 Work area is left in a state that enables the next task to begin.

Planned review date	31 December 2025
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	23 April 2020	N/A
Revision	2	30 March 2023	N/A

Consent and Moderation Requirements (CMR) reference

0028

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.