

Title	Carry out aeronautical NDT inspections using magnetic particle methods		
Level	4	Credits	10

Purpose	People credited with this unit standard are able to: prepare aeronautical parts for NDT (non destructive testing) inspections using magnetic particle methods; inspect aeronautical parts using magnetic particle methods; and complete post-inspection tasks.
----------------	--

Classification	Aeronautical Engineering > Aeronautical Non Destructive Testing
-----------------------	---

Available grade	Achieved
------------------------	----------

Prerequisites	<p>Candidates must pass the following vision examination:</p> <p>Near vision acuity Natural or corrected near-distance acuity in at least one eye to show that the applicant is able to:</p> <ul style="list-style-type: none"> – read a minimum of Jaeger Number 2 or equivalent type and size letter at a distance of not less than 30.5 cm (12 inches) on a standard Jaeger test chart; or – perceive an Ortho-Rater minimum of 8 (or similar test pattern).
----------------------	--

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.

Outcomes and performance criteria

Outcome 1

Prepare aeronautical parts for NDT inspections using magnetic particle methods.

Performance criteria

1.1 Task is determined by reviewing maintenance documentation and enterprise procedures.

1.2 Work area is prepared, and resources are obtained and checked for serviceability or status.

Range may include but is not limited to – publications, materials, tools, equipment, safety equipment, environmental conditions established.

1.3 Aeronautical parts are matched with documentation by comparing serial and/or part numbers.

1.4 Aeronautical parts are prepared for inspection.

Range clean surface finish.

1.5 Inspection equipment is set up.

Outcome 2

Inspect aeronautical parts using magnetic particle methods.

Performance criteria

2.1 Aeronautical parts are magnetised.

Range alternating current (AC), direct current (DC), half wave DC, current flow, direct or indirect induction, circular, longitudinal.

2.2 Particles are applied, and dwell time observed.

Range brush, spray, dip, flow.

2.3 Aeronautical parts are inspected.

Range inspection equipment, standards, specifications, precision measuring equipment.

Outcome 3

Complete post-inspection tasks.

Performance criteria

3.1 Inspected aeronautical parts are prepared.

Range may include but is not limited to – storage, transit, post-test clean, inhibit, blank, pack.

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

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

3.3 Leftover materials are disposed of.

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

3.4 Documentation is completed.

Range may include but is not limited to – labels, work cards, logbooks.

3.5 Work environment is left in a state that enables the next task to begin.

Planned review date	31 December 2024
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	23 April 1996	31 December 2016
Revision	2	7 August 1997	31 December 2016
Revision	3	8 May 2001	31 December 2016
Review	4	20 June 2006	31 December 2016
Review	5	24 October 2014	31 December 2021
Review	6	26 March 2020	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 ServiceIQ qualifications@serviceiq.org.nz if you wish to suggest changes to the content of this unit standard.