Title	**Roto-peen aeronautical components**		
Level	**4**	**Credits**	**8**

Purpose	People credited with this unit standard are able to: prepare to roto-peen aeronautical components; prepare a roto-peening machine; roto-peen aeronautical components; inspect roto-peened aeronautical components; prepare aeronautical components; and carry out task completion activities.

Classification	Aeronautical Engineering > Aeronautical Machining

Available grade	Achieved

Guidance Information

1 All tasks must be carried out in accordance with enterprise procedures.

2 Definitions
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.
Roto-peening could be referred to as Flapper-peening or Self-contained shot peening materials by different manufacturers.

3 References may include but are not limited to – PMSM ABP1-30 (Airbus) and SRM51-20-06-SOPM 20-10-03 (Boeing).

Outcomes and performance criteria

Outcome 1

Prepare to roto-peen aeronautical components.

Performance criteria

1.1 Component identity is confirmed with documentation by comparing serial and part numbers.

1.2 Task is established and documented.

1.3 Work area is prepared, and resources are obtained.

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

Outcome 2

Prepare a roto-peening machine.

Performance criteria

2.1 Roto-peening machine is prepared.

Range condition checked, set up, speed adjusted, made safe to use.

2.2 Media is prepared.

Range size, type, quality.

2.3 Almen test strip is prepared.

Range media type, speed and size, Almen strip type, time and distance.

2.4 Almen strip curvature is measured.

2.5 Machine is set for task requirement.

Range speed, distance, time.

Outcome 3

Roto-peen aeronautical components.

Performance criteria

3.1 Component is peened.

Range speed, distance, time.

Outcome 4

Inspect roto-peened aeronautical components.

Performance criteria

4.1 Component is measured and checked for conformity with specifications.

Range dimensional and/or angular accuracy, profile, surface finish.

4.2 Any defects are reported, recorded, and rectified.

Outcome 5

Prepare aeronautical components.

Performance criteria

5.1 Component is prepared.

Range may include but is not limited to – use, storage, transit, inhibiting, cleaning, packing.

5.2 Documentation is completed.

Outcome 6

Carry out task completion activities.

Performance criteria

6.1 Completion activities specific to task and work area are carried out.

Range may include but is not limited to – tool control, cleanliness, tidiness, return of publications, preparation for next activity.

6.2 Leftover items, parts, and materials are disposed of.

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

Planned review date	31 December 2027

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	17 September 2015	31 December 2021
Review	2	26 March 2020	N/A
Rollover and Revision	3	26 April 2024	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.