



SLOVENSKI STANDARD SIST EN 9147:2023

01-februar-2023

Aeronavtika - Ravnanje z nepopravljivimi predmeti

Aerospace series - Management of unsalvageable items

Luft- und Raumfahrt - Management nichtverwendbarer Gegenstände

Série aérospatiale - Gestion des éléments irrécupérables

Ta slovenski standard je istoveten z: **EN 9147:2022**

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Aerospace series - Management of unsalvageable items

Série aérospatiale - Gestion des éléments
irrécupérablesLuft- und Raumfahrt - Management nichtverwendbarer
Gegenstände

This European Standard was approved by CEN on 8 May 2022.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 9147:2022) has been prepared by the Aerospace and Defence Industries Association of Europe — Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, prior to its presentation to CEN.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2023, and conflicting national standards shall be withdrawn at the latest by May 2023.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

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Introduction

The International Aerospace Quality Group (IAQG), with representatives from aviation, space, and defence in the Americas, Asia/Pacific, and Europe, benchmarked industry best practices and guidance to develop the requirements of unsalvageable items management. The key objectives of this document are to:

- prevent unsalvageable items from being used for manufacturing, maintenance, or repair of aviation, space, and defence products;
- specify the conditions of their reclassifications; and
- mitigate the risk of unsalvageable items being disassembled.

This document is complementary to EN 9100-series standards (i.e. EN 9100, EN 9110, EN 9120) requirements associated to the control of nonconforming products.

This document standardizes unsalvageable item management process requirements to the greatest extent possible. It can be used at all levels of the supply chain by organisations around the world to mitigate the risk to use unsalvageable items within aviation, space, and defence products to improve and ensure the performance, reliability, and safety of these products.

This document provides the following potential benefits:

- standardizes unsalvageable management process requirements;
- integrates aviation, space, and defence industry best practices and guidance;
- increases product quality and safety;
- achieves cost savings due to unsalvageable item reclassifications;
- reduces waste/environmental footprint by fostering reclassification;
- protects companies' intellectual property by preventing reverse engineering on unsalvageable items.

1 Scope

This document is applicable to all items used for manufacturing, maintenance, and repair of aviation, space, and defence products from the raw material to the final product (e.g. aircraft, structural items, constituent assemblies, standard parts, consumables with conformity and/or safety impact).

This document considers items dispositioned as scrap in accordance with EN 9100-series standards' supporting nonconformity management, corrective action, or organisation decisions (e.g. obsolescence, inventory management, missing traceability documentation).

The requirements specified in this document are complementary (not alternative) to contractual and applicable statutory and regulatory requirements. Should there be a conflict between the requirements of this document and applicable statutory or regulatory requirements, the applicable statutory or regulatory requirements take precedence.

This document defines requirements and actions to be taken after the disposition decision to control the unsalvageable items within the organisation and its external providers.

NOTE The control of external provider is addressed in the EN 9100-series standards.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 9100, *Quality Management Systems — Requirements for Aviation, Space and Defence Organisations*¹⁾

EN 9110, *Quality Management Systems — Requirements for Aviation Maintenance Organisations*¹⁾

EN 9120, *Quality Management Systems — Requirements for Aviation, Space and Defence Distributors*¹⁾

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

¹⁾ As developed under the auspice of the IAQG and published by various standards bodies [e.g., ASD-STAN, SAE International, European Committee for Standardization (CEN), Japanese Standards Association (JSA)/Society of Japanese Aerospace Companies (SJAC), Brazilian Association for Technical Norms (ABNT)].

EN 9147:2022 (E)**3.1****disposition decision**

action taken by the organisation to assign the disposition of nonconforming or unserviceable items (including over shelf-life items and over life-limited items), or surplus for the following categories:

- a) rework;
- b) repair;
- c) use as is;
- d) return to customer;
- e) reject to external provider;
- f) scrap

3.2**item**

any material, part, spare part, component, functional unit, equipment, software media, system, or aircraft that can be individually considered

3.3**mutilation**

irreversible alteration or change rendering the item beyond repair, incapable of being reworked, and physically unusable

3.4**reclassification**

action to re-use an item for non-airworthy purpose

EXAMPLE Exhibition, training, tooling, test devices, mock-ups, jigs.

3.5**scrapping**

action to mutilate, dispose with traceability, reclassify, or reject to external provider an unsalvageable item to preclude its originally intended use

3.6**unsalvageable**

item that does not conform to its approved design and cannot be restored to a conforming condition, or an item declared as not to be used for its airworthy intended purpose

Note 1 to entry: An unsalvageable item cannot be restored to an airworthy condition.

3.7**unserviceable**

maintained or repaired item that does not conform to its approved design or that does not have proper release documentation

Note 1 to entry: An unserviceable item may be restored to an airworthy condition.

4 Requirements

4.1 General requirements

The organisation shall ensure that:

- a) no unsalvageable items are used for manufacturing, maintenance, or repair on aviation, space, and defence products;
- b) actions are taken to prevent resurfacing or resale of an unsalvageable item intended for use on aviation, space, and defence products;
- c) an unsalvageable item does not recover an airworthy status;
- d) no unsalvageable items are disassembled to use their components for an airworthy purpose;

NOTE Nonconforming or unserviceable items may be disassembled.

- e) documented information is retained to ensure the traceability of unsalvageable items until their mutilation or destruction.

4.2 Unsalvageable item management process requirements

- a) The organisation's top management shall demonstrate leadership and commitment with respect to the unsalvageable items management process.
- b) The organisation shall define responsibility and authority for establishment, implementation, and maintenance of the unsalvageable items management process.

NOTE It is common to set up a disposition committee to run the unsalvageable items management process.

- c) The organisation shall establish, implement, and maintain documented information of the unsalvageable items management process. The unsalvageable items management process shall include consideration of the following elements (see 4.3):

- 1) general scrapping requirements;
- 2) mutilation requirements;
- 3) disposal with traceability requirements;
- 4) reclassification requirements;
- 5) rejection to external provider requirements.

Refer to the unsalvageable items management flowchart depicted in Annex A.

- d) The organisation shall flow down to external providers applicable unsalvageable items management process requirements.
- e) The organisation shall require that external providers flow down to their external providers applicable unsalvageable items management process requirements.
- f) The organisation shall monitor the unsalvageable items management process for effectiveness based on internal, customer, statutory, and regulatory requirements.

EN 9147:2022 (E)**4.3 Scrapping options**

4.3.1 Unsalvageable items dispositioned for scrap shall be either:

- a) mutilated (see 4.3.4);
- b) disposed with traceability (see 4.3.5);
- c) reclassified (see 4.3.6); or
- d) rejected to external provider (see 4.3.7).

4.3.2 All unsalvageable items shall be segregated with positive controls before they are mutilated, disposed with traceability, reclassified, or rejected to external provider.

4.3.3 All unsalvageable items shall be positively controlled until physically rendered unusable.

When dispositioning an item, consideration should be given regarding embedded software.

4.3.4 When the organisation decides to mutilate unsalvageable items, the organisation shall:

- a) establish, implement, and maintain documented information to mutilate unsalvageable items; and
- b) define responsibility and authority for mutilating unsalvageable items.

NOTE After mutilation, an item becomes waste and follows the organisation's established waste management processes.

4.3.5 When the unsalvageable items mutilation is performed outside the organisation, due to technical limitations or organisation strategy, the organisation shall ensure that disposal of the unsalvageable items is traceable:

- a) the organisation shall dispose of the unsalvageable item through an external provider approved to comply with the general requirements defined in 4.1;
- b) when the external provider is not approved, the organisation shall witness the mutilation or the destruction of the unsalvageable item to ensure compliance with the general requirements defined in 4.1.

4.3.6 When the organisation decides to reclassify the unsalvageable item with a non-airworthy status:

- a) the organisation shall maintain traceability for unsalvageable items when mutilation has not been performed;
- b) the organisation shall establish and retain documented information (e.g. log book), including part number, part name, and location, in order to maintain the traceability of the reclassified unsalvageable items;
- c) if the organisation decides to end the reclassification of unsalvageable items, the organisation shall apply the scrapping requirements of this standard (see 4.3).

4.3.7 When the organisation decides to reject to the external provider the unsalvageable items:

- a) the external provider shall apply its unsalvageable item management process according to the organisation requirements;
- b) when the organisation disposes of the unsalvageable item on behalf of the external provider, the organisation shall follow its own unsalvageable item management process.