

# ASA Best Practice Disposition of Unsalvageable Aircraft Parts

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#### Purpose and Audience

This document is intended to be useful to any person who handles aircraft parts, including (but not limited to) distributors, air carriers, repair stations, aircraft/engine disassemblers and manufacturers. The guidance in this document is meant to help prevent unsalvageable aircraft parts and materials from entering back into the marketplace in a way that could jeopardize safety.

## **Related Documents**

- a) 14 C.F.R. Part 21, Certification Procedures for Products and Parts.
- b) 14 C.F.R. Part 43, Maintenance, Preventative Maintenance, Rebuilding and Alteration.
- c) FAA Advisory Circular 20-62, Eligibility, Quality, and Identification of Approved Aeronautical Replacement Parts,
- d) FAA Advisory Circular 21-29, Detecting and Reporting Suspected Unapproved Parts
- e) FAA Advisory Circular 00-56, Voluntary Industry Distributor Accreditation Program
- f) ASA-100 Quality System Standard

# **Background**

It is common practice for possessors of aircraft parts to dispose of unsalvageable parts and materials by selling, discarding, or transferring such items. In some instances, items intended to be scrapped have reappeared for sale and in the active parts inventories of the aviation community.

Misrepresentation of the status of aviation parts and materials, including the practice of making such items appear airworthy when they are not airworthy, may violate federal and state laws and regulations. It also can jeopardize aviation safety.

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## Legal Effect of this Guidance

This guidance represents recommended practices, based upon common industry practices. It does not represent a regulation or a requirement. The Aviation Suppliers Association does not require any company to adhere to this recommended guidance, and does not recommend that any company require a business partner to adhere to this recommended guidance.

## Types of Parts and Materials that May be Considered Unsalvageable

Persons disposing of unsalvageable aircraft parts or materials should consider the possibility that a future possessor of those parts or materials may (willfully or inadvertently) later misrepresent those items as serviceable parts or materials.

Caution should be exercised to ensure that the following types of parts and materials are disposed of in a manner that does not allow them to be returned to service:

a. Parts with non repairable defects, whether visible or not to the naked eye.

b. Parts that are not within the specifications set forth by the approved design, and that cannot be brought into conformance with applicable specifications.

c. Parts and materials for which further processing or rework cannot make them eligible for certification under a recognized certificate holder's system.

d. Parts subjected to unacceptable modification or rework that is irreversible.

e. Life limited parts that have reached or exceeded their life limits, or that have missing or incomplete records to the extent that the missing records preclude reconstruction of the current time in a manner acceptable to the appropriate regulatory authority.

f. Parts that cannot be returned to airworthy condition due to exposure to extreme heat, stress or environmental conditions.

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g. Principal structural elements (PSE) removed from a high cycle aircraft for which conformity cannot be accomplished by complying with the applicable aging aircraft airworthiness directives

**NOTE:** many companies deem parts or materials to be scrap or unsalvageable based on economic factors (e.g. the cost of performing the repair exceeds the fair market value of the part). When a part is deemed to be beyond economic repair, it is possible that repair may become economical due to factors like supply (short supply may make the part more valuable), technology (new repair methods may make repair economical), or cost factors (another company with lower labor costs or more economical access to spare parts may find that a repair is economical, despite the fact that the prior owner of the part did not think the part was salvageable). Furthermore, changes sometimes occur that cause parts – previously thought unsalvageable – to be thought of as salvageable (for example, manufacturer's life extension programs which extend the life-limit associated with a part). This Guidance is not meant to prevent legitimate practices that can return an aircraft part to an airworthy condition.

## Methods to Prevent Misrepresentation of Unsalvageable Parts and Materials

A. Persons disposing of unsalvageable aircraft parts and materials should, when appropriate, mutilate those parts and materials prior to release. Mutilation should be accomplished in such a manner that the parts become unusable for their original intended use. Mutilated parts should not be able to be reworked or camouflaged to provide the appearance of being serviceable, such as by replating, shortening and rethreading long bolts, welding, straightening, machining, cleaning, polishing, or repainting.

(1) When properly accomplished, the following methods of mutilation may be considered to be effective ways to prevent unsalvageable parts or materials from being susceptible to reintroduction into the marketplace as if they were airworthy parts:

(a) Grinding.

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- (b) Burning.
- (c) Destructive removal of a major lug or other integral feature
- (d) Permanent distortion of parts
- (e) Cutting a hole with cutting torch or saw
- (f) Melting
- (g) Sawing into many small pieces

(2) The following procedures are examples of mutilation that are often less successful because they may not be consistently effective. Persons using such methods should be especially careful to combine them with methods from section (1), or otherwise adopt a strategy designed to assure that the method used adequately prevents the unsalvageable part or material from being susceptible to reintroduction into the marketplace as if it was an airworthy part:

- (a) Stamping (such as a stamped "R" on a part)
- (b) Spraying with paint
- (c) Hammer marks
- (d) Identification by tag or markings
- (e) Drilling small holes
- (f) Sawing in two pieces

**NOTE**: Persons who rework unsalvageable parts and materials may be highly skilled technicians have been known to rejoin parts cut in two pieces in such a manner that the mutilation proves difficult to detect.

B. Persons disposing of unsalvageable aircraft parts or materials may choose to release those parts for legitimate non-flight uses, such as for training and education, research and development, or for non-aviation applications. In such instances, mutilation may not be appropriate.

(1) One or more of the following methods may be used to help prevent misrepresentation:

(a) Permanently marking or stamping the parts, subparts, and material as "NOT SERVICEABLE";

(b) Removing original part number identification;

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(c) Removing data plate identification;

(d) Maintaining a tracking or accountability system, by serial number or other individualized data, to record transferred unsalvageable aircraft parts and materials;

(2) In any agreement or contract transferring such parts or materials, the transferor may include written procedures and warranties concerning disposition and disposal of such parts or materials;

C. Organizations handling unsalvageable or expired life limited aircraft parts and materials should establish secure areas in which to segregate such items from active serviceable inventories and to prevent unauthorized access. Caution should be exercised to ensure that these parts and materials receive the appropriate final disposition. (ref. ASA-100 8.H)

**NOTE**: Unsalvageable or expired life limited parts and materials should not be released to any person whom the transferor believes might illegally reintroduce the parts or materials back into service in aircraft, due to the potential safety threat.

D. An owner who mutilates serialized parts may wish to voluntarily provide the original manufacturer with the data plate and/or serial number and final disposition of the part, for tracking purposes.

E. All purchasers of aircraft parts and materials should ensure that misrepresented unsalvageable parts and materials are not received into active inventory. The following are examples of conditions to be alert for when receiving parts:

(a) Parts represented as "New" parts but showing signs of maintenance or modification;

(b) Used parts showing signs of illegal or inappropriate repair;

(c) Parts with poor workmanship or signs of rework in the area of the part number or serial number inscription;

(d) Used parts lacking industry-standard documentation;

(e) Questionable part numbers, fraudulent or suspicious markings and/or untraceable re-identification, stamp over or vibroetching on the data plate;

(f) Maintained or altered parts delivered with missing maintenance release tags;

(g) Parts with a finish that is inconsistent with industry standards (e.g., discoloration, inconsistencies, resurfacing);

(h) New parts sold with maintenance release tags reflecting a status other than "new" or "inspected";

(i) Parts with documentation exhibiting incomplete or inconsistent part identity information;

(j) Intact "scrap" unsalvageable parts offered in bulk weight for prices higher than what would be considered normal for mutilated parts with identical weight and content.

#### **DOCUMENTATION AND RECORD KEEPING**

A. Persons disposing of unsalvageable aircraft parts and materials should maintain a record keeping system which identifies the part number, serial number (as applicable) and description of the part.