

AERONAUTICAL CIRCULAR CIVIL AVIATION AUTHORITY – MACAO, CHINA

SUBJECT:

Disposition of Scrap Aircraft Parts & Materials

EFFECTIVE DATE:

20 February 2009

CANCELLATION:

Nil

GENERAL:

The President of Civil Aviation Authority – Macao, China, in exercise of his power under Paragraph 89 of the Air Navigation Regulation of Macao (ANRM) and Article 35 of the Statutes of Civil Aviation Authority, approved by the Decree-Law 10/91/M, established this Aeronautical Circular (AC).

1 Introduction

Parts and materials may be deemed scrap once determined unserviceable or ineligible for installation on an aircraft, aircraft engine, or aircraft propeller. In some cases, it has been common practice to dispose of scrap parts and materials by selling, discarding, or transferring the items. In some instances, these items have reappeared for sale in the active parts inventories of the aviation community. Misrepresentation of the status of parts and materials, and the practice of making such items appear serviceable, could result in the use on a certificated aircraft, aircraft engine, or aircraft propeller.

2 Definition

For the purpose of this Circular the following definition applies:

- (a) **Scrap** means parts and materials that the owner has decided to dispose of because the parts and materials are beyond economical repair, considered to be of little value, or unusable for any other aviation reason.

3 Types of Parts and Material that may be Misrepresented

Persons disposing of scrap aircraft parts and materials should consider the possibility of such parts and materials being misrepresented and sold as serviceable at a later date. Caution should be exercised to ensure that the following types of parts and materials are disposed of in a controlled manner that does not allow them to be returned to service:

- 3.1 Parts with non-repairable defects, whether visible or not to the naked eye.
- 3.2 Parts that are not within the specifications set forth by the approved design, and cannot be brought into conformance with applicable specifications.
- 3.3 Parts and materials for which further processing or rework cannot make them eligible for certification under a recognised released system.
- 3.4 Parts subjected to unacceptable modification or rework that is irreversible.
- 3.5 Life-limited parts that have reached or exceeded their life limits, or have missing or incomplete records.
- 3.6 Parts that cannot be returned to an airworthy condition due to exposure to extreme forces or heat. (See AC/AW/017)
- 3.7 Principal Structural Elements (PSE) removed from a high-cycle aircraft for which conformity cannot be accomplished by complying with the mandatory requirements applicable to ageing aircraft.

4 Methods to Prevent Misrepresentation of Scrap Parts and Materials

- 4.1 Persons disposing of scrap 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, nor should they be able to be reworked or camouflaged to provide the appearance of being serviceable, such as by re-plating, shortening and re-threading long bolts, welding, straightening, machining, cleaning, polishing, or repainting.

- 4.1.1 Mutilation may be accomplished by one or a combination of the following procedures, but is not limited to:

- (a) Grinding;
- (b) Burning;
- (c) 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.

4.1.2 The following procedures are examples of mutilation that are often less successful because they may not be consistently effective:

- (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. Persons who rework scrap parts and materials may be skilled technicians and attempt to restore parts cut in two pieces in such a manner that the mutilation proves difficult to detect.

4.2 Scrap aircraft parts and materials may be disposed for legitimate non-flight uses, such as training and education aids, research and development, or for non-aviation applications. In such instances, mutilation is not appropriate and the following methods should be used to prevent misrepresentation:

4.2.1 Permanently marking or stamping the parts, subparts, and material as 'NOT SERVICEABLE'. (Ink stamping is not an acceptable method);

4.2.2 Removing original part number identification;

4.2.3 Removing data plate identification;

4.2.4 Maintaining a tracking or accountability system, by serial number or other individualised data, to record transferred scrap aircraft parts and materials; and

4.2.5 Including written instructions concerning disposition and disposal of such parts and materials in any agreement or contract transferring such parts and materials.

NOTE: Scrap or expired life-limited parts and materials should not be passed on to any person or organisation who may end up placing the parts and materials back in actual use, due to the criticality of parts and material failure and the potential safety threat.

- 4.3 Organisations handling scrap or expired life-limited aircraft parts and materials should establish a quarantine store area in which to segregate such items from active serviceable inventories and to prevent unauthorised access. Caution should be exercised to ensure that these parts and materials receive the disposition specified in this Notice.
- 4.4 Manufacturers producing approved aircraft parts should consider maintaining records of serial numbers for 'retired' life-limited or other critical parts. In such cases, the owner who mutilates applicable parts is encouraged to provide the original manufacturer with the data plate and/or serial number and final disposition of the part.

5 Method to Identify Misrepresented Parts

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

- 5.1 Parts showing signs of rework which were purchased as 'new'.
- 5.2 Used parts showing signs of unapproved or inappropriate repair.
- 5.3 Parts with poor workmanship or signs of rework in the area of the part data plate, number or serial number inscription.
- 5.4 Used parts lacking verifiable documentation of history and approval.
- 5.5 Parts with prices 'too good to be true'.
- 5.6 Questionable part numbers, fraudulent or suspicious Technical Standard Order or FAA - Parts Manufacturer Approval markings and/or re-identification, stamp-overs or vibro-etching on the data plate.
- 5.7 Parts delivered with photocopied or missing maintenance release documentation.
- 5.8 Parts with a finish that is inconsistent with industry standards (e.g., discoloration, inconsistencies, resurfacing).
- 5.9 Parts purchased as new but with release documentation reflecting a status other than new.
- 5.10 Parts with poor documentation exhibiting incomplete or inconsistent part identity information.
- 5.11 Intact 'scrap' unsalvageable parts offered in bulk weight for prices higher than for mutilated parts with identical weight and content.

AC

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NOTE: Suspected Unapproved Parts Notification can be found on FAA Internet address: <http://www.faa.gov/avr/sups.htm> and Special Airworthiness Information Bulletins can be found on FAA Internet address: <http://av-info.faa.gov>.

An approved organisation or LAME who receives suspect parts should report to the President of AACM in accordance with AC/AW/016.

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