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**GENERAL**

**LEGISLATION MATTERS**

**PUBLICATION IN TERMS OF THE SOUTH AFRICAN CIVIL AVIATION ACT NUMBER 40 OF 1998 AND THE CIVIL AVIATION REGULATION PART 11.01.2, FOR THE DEVELOPMENT AND IMPROVED UNDERSTANDING OF CAR 43.02.21 (BEST PRACTICE TO HANDLE SCRAP OR SALVAGEABLE AIRCRAFT PARTS AND MATERIAL)**

**1. SCOPE OF THIS PRACTICE**

*The information provided in this document may be used by Production Approval Holders, and their suppliers, hereafter referred to as the manufacturer. This information may be applied to manufacturers involved in the control, distribution, sale, maintenance, or disposition of scrap or salvageable aircraft engines, aircraft propellers, and aircraft parts and materials (hereafter referred to as "parts and materials"). This information may also be used to identify, segregate, and control rejected parts and materials in order to preclude their use in finished product. However, establishing a program which will identify unapproved part, is encouraged by the South African Civil Aviation Authority (SACAA).*

**2. BACKGROUND**

*Parts and materials may be deemed scrap or salvageable 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 scrapped parts and materials by selling, discarding, or transferring the items. There have been some instances when these items have been discovered for sale or found 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 their use on a certificated aircraft, aircraft engine, or aircraft propeller. A lack of proper industry controls may result in a part being copied or repaired and reintroduced into the market as an approved part. Use of such parts can have serious safety implications and liabilities for the manufacturer, aircraft operator, or repair facility. The use of an effective system to control scrap or salvageable parts and materials will reduce the potential for these items being distributed or sold as serviceable products.*

**3. DEFINITIONS**

*The following definitions apply to the discussion in this best practice and may not be the same as similar terms used in other documents or applications:*

- a. **Salvageable.** *Aviation parts and materials that are unserviceable (or of unknown status) from an economic point of view, but have a potential value in an aviation application. Salvageable parts and materials are placed into two categories:*
- (1) *Non-airworthy parts and materials, that may be worth storing until they can be restored to an airworthy condition, or until shown to be airworthy with adequate documentation and/or testing.*
  - (2) *Parts and materials that cannot be found airworthy at the time they are stored, but which there is reason to believe that they are likely to have future aviation value. Examples are:*
    - (a) *A part that has reached its present life limit, but which may receive an increase in that limit based on in-service experience and analysis.*
    - (b) *A part that requires a repair for which there is currently no approved repair process, but for which a new approved process may be anticipated.*
- b. **Scrap.** *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. Scrap parts and materials are placed into four categories:*
- (1) *Parts and materials that were used in safety-critical aviation applications and may have future use in non-aviation applications.*

- (2) *Parts and materials that were used in low-risk safety aviation applications and may have future use in non-aviation applications.*
- (3) *Parts and materials whose misuse in aviation poses an insignificant safety risk.*
- (4) *Parts and materials that have no value except for the base material.*

#### **4. DOCUMENTING THE PROCESS**

*Maintaining a well-defined quality program is fundamental to controlling rejected parts and materials. One element to be addressed within this program is the control and disposal of scrap and salvageable parts and materials. Quality systems without this element, could allow parts and materials to migrate back into the active parts inventories.*

#### **5. PREVENTING MISREPRESENTATION OF SCRAP PARTS AND MATERIALS**

*Manufacturers should dispose of scrap parts and materials through mutilation, when appropriate. Proper and thorough mutilation of parts and materials will ensure they are unusable for their original application and render them incapable of being reworked or camouflaged to provide the appearance of being serviceable. Effective mutilation may be accomplished by, although not limited to, one or a combination of the following methods:*

- a. *Grinding.*
- b. *Burning.*
- c. *Removal of a major integral feature.*
- d. *Permanent distortion of parts and materials.*
- e. *Cutting a significant size hole with a cutting torch or saw.*
- f. *Melting.*
- g. *Sawing into many small pieces.*
- h. *Removing manufacturer identification, part, lot, batch, and serial number if not on separate ID plate.*

#### **6. DISPOSING OF SCRAP PARTS AND MATERIALS**

*Manufacturers disposing of scrap parts and materials may choose to release them for legitimate non-flight use. This non-flight usage may include training, education, research and development, or non-aviation applications. In such instances, mutilation may not be appropriate. The following methods may be used to prevent future misrepresentation:*

- a. *PERMANENTLY AND CLEARLY mark the parts, subparts, and materials as "NOT FOR AVIATION USE" and "NOT SERVICEABLE." Ink stamping is not normally considered an acceptable method.*
- b. *Remove part number identification.*
- c. *Remove identification plate and marking.*
- d. *Maintain a tracking or accountability system by serial number or other individualized data to record transferred scrap parts and materials.*
- e. *In any agreement or contract transferring scrap parts and materials, develop written procedures identifying disposition and disposal requirements.*
- f. *Secure a signed certification statement from the purchaser indicating that "the purchaser will not use or convey these parts or materials for use in aviation products."*

*For those items determined to be scrap and having no further aviation use, manufacturers should have procedures that require documentation such as a written contract with scrap dealers indicating their intent to properly dispose of all parts and materials received. Manufacturers should maintain records of serial numbers for scrapped 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 or serial number and final disposition of the part.*

#### **7. PREVENTING MISREPRESENTED PARTS AND MATERIAL IN INVENTORIES**

*Manufacturers should ensure that items being received into active inventories are not misrepresented parts and materials. The following are examples of conditions to be alerted to when receiving parts and materials:*

- a. *Parts and materials represented as new that show signs of rework.*
- b. *Used parts and materials showing signs of unapproved or inappropriate repair.*
- c. *Parts and materials with poor workmanship or signs of rework in the area of the part number or serial number inscription.*
- d. *Used parts and materials lacking verifiable documentation of history and SACAA approval.*
- e. *Parts and materials with prices "too good to be true."*
- f. *Questionable part numbers, fraudulent or suspicious Technical Standard Order or SACAA parts manufacturer approval markings and/or re-identification, over-stamping, or vibra-etching on the data plate.*
- g. *Parts and materials delivered with altered photocopies or missing maintenance release tags.*

- h. *Parts and materials with a finish that is inconsistent with industry standards (e.g. discoloration, inconsistencies, resurfacing, etc).*
- i. *New parts and materials sold with maintenance release tags reflecting a status other than new.*
- j. *Parts and materials with poor documentation exhibiting incomplete or inconsistent part identity information.*

**8. PREVENTING MISREPRESENTATION OF SALVAGEABLE PARTS AND MATERIALS**

*Manufacturers handling salvageable parts and materials should establish secure areas to segregate such items from active serviceable inventories and prevent unauthorized access. Furthermore, manufacturers should develop procedures to address the retention of records, that indicate the status of parts and materials that exceed current repair criteria, or life limits, and are being held in anticipation of future repair methods or extension to life limits. Caution should be exercised to ensure that these parts and materials receive the appropriate final disposition.*

**9. CONCLUSION**

*Aviation safety is best served with sound processes that control scrap and salvageable parts and materials. Utilizing the practices identified in this document will reduce the potential for these items being distributed and sold as serviceable products. With aviation safety in mind, the aviation community is responsible for preventing misrepresentation of aviation parts and material. The SACAA encourages manufacturers to establish a program that controls scrap and salvageable parts and materials as an integral part of their quality management systems.*

*Misrepresented parts and materials that are offered for sale, or have been furnished for aviation use, should be reported to the SACAA. This may be accomplished via the SACAA website through the Confidential Hazard Reporting system, by e-mail to [mail@caa.co.za](mailto:mail@caa.co.za) or by calling the Airworthiness Department on 011-545-1000/1131.*

*This AIC is an explanation of the Regulation CAR 43.02.21 and an indication of the Regulatory intent.*



**COMMISSIONER FOR CIVIL AVIATION**