# CHAPTER 53

## APPROVE PARTS/PARTS POOL/PARTS BORROWING

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## 1.0 OBJECTIVE

This section provides guidance in evaluating and approving aircraft parts, a parts pool, and parts borrowing authorization for air carriers operations. Reference: ICAO Document 9389 - AN/919, Attachment 7-A.

## 2.0 GENERAL

A. Definitions

(1) Articles: Materials, parts, or appliances

(2) Operator Manufactured Parts: Parts manufactured and documented by the operator for use only on that operator's aircraft. The parts must comply with the original type design and cannot be part of a pool or borrowing agreement.

(3) Parts: Any engine, propeller, component, accessory, material, or hardware used on an air carrier aircraft.

(4) Parts Manufacturer Approval (PMA): PMA parts are parts produced by manufacturers other than the type certificate holder. These parts must be identical to parts covered under a type certificate, and they must be marked as such. A manufacturer with parts manufacturer approval authority may approve these parts for use. Authorized aviation safety Inspectors in the country where the part was manufactured also may approve these parts.

(5) Supplemental Type Certificate (STC): When a major change in type design does not require a new application for a type certificate, a supplemental type certificate is issued. Parts manufactured under the supplemental type certificate.

(6) Technical Standard Order (TSO): A technical standard order is a minimum performance standard for specified articles used on civil aircraft, and is issued by the regulatory authority where the article was manufactured.

(7) Type Certificate (TC): A type certificate includes the type design, operating limitations, type certificate data sheet, applicable regulations, and any other conditions or limitations prescribed by the regulatory authority in the country of manufacturer.

B. An operator must ensure that all replacement parts meet or exceed original certification standards. Standard hardware and materials can be used and exchanged without special procedures. When special requirements must be met, accurate documentation must be maintained. Purchased, used, and exchanged parts require special procedures that must be part of the operator's manual, and in certain circumstances, part of the operator's operations specifications.

## 3.0 PARTS POOL AGREEMENT AUTHORIZATIONS

These authorizations apply only to air carriers operating outside Nigeria.

A. When operating under this authorization, all other provisions of the CARs remain applicable. In addition, surveillance of the foreign facilities and their procedures to ensure that all work on pooled parts is performed according to the operator's manuals is required by the air operator.

B. These authorizations are approved by issuance of operations specifications. The operations specifications are required only to list those participants (and their locations) inspected by the operator and acceptable to the NCAA.

(1) In instances where several ICAO countries certificated operators use a foreign facility, the NCAA does not object to a participating operator accepting another participating operator's initial or renewal inspection report, provided the operator's manual reflects the arrangement.

(2) The air carrier's operations specifications must be amended to reflect a new participants or location, of a parts pool.

(3) The Nig.CARs permit deviation allowing the return to service and use of airframe components, powerplants, appliances, and spare parts thereof that have been maintained, altered, or inspected by persons employed outside Nigeria who do not hold a Nigerian Aircraft Maintenance License. The operator's operations specifications authorize this deviation.

C. Foreign Facility Inspections

(1) The assigned airworthiness inspector with responsibility for the foreign facility conducts the parts pool inspection. Foreign facilities that do not have an appropriate repair station rating should be inspected annually.

(2) The operator must have in its manual procedures to inspect the parts pooling facilities. The manual also must include procedures to ensure the maintenance of parts according to the operator's maintenance management exposition.

## 4.0 PARTS BORROWING AUTHORIZATION

A. A certificate holder operating under the NIG. CARs may be issued OPS SPEC.to allow it to borrow a part with a higher time since overhaul than authorized, subject to certain conditions and limitations. Since no regulations govern this activity, the operations specifications must specify that the operator can borrow a part from another operator when the time in service of the available part exceeds the operator's approved overhaul time limit. The parts, however, cannot exceed the lender's approved time limits.

B. If the number of landings controls the part's service or overhaul time limit, an operator may borrow and use a part for a maximum of 100 hours or 50 landings when the time in service of the parts exceeds the borrower's approved time limits. The following limitations must be met:

(1) The part must have a minimum time of 200 hours or 100 landings (if approved time is controlled by landings) remaining before service or overhaul in the lender's programme

(2) If the part is life limited, the part may not be operated beyond its approved life limit.

## 5.0 PARTS APPROVAL

A. Although it is the operator‘s responsibility to be aware of the possible consequences of using questionable parts on certificated aircraft, the inspector should offer guidance to help prevent possible problems. An operator using a part of unknown quality, condition, or origin must be able to prove conclusively that such parts conform to the original or properly altered type design and are airworthy.

B. The operator is responsible for maintaining parts in a condition that ensures the parts continue to meet the original type design. Procedures to ensure this proper maintenance must be part of the operator's manual.

C. The US-FAA has a parts manufacturing approval system in effect that allows the FAA to control the sale of reproduction parts. Parts manufactured under this system must display evidence of FAA approval, verifying the origin and serviceability.

D. Repair stations or air carriers may manufacture replacement parts as part of their maintenance programme. These parts are acceptable, provided they are manufactured according to acceptable CAA/FAA approved data.

E. Parts, appliances, and components form aircraft that have been involved in accidents or crashed are available to the industry as replacements. The operator must ensure the serviceability and airworthiness of these items before use.

F. Ex-military aircraft now under civilian type certificates create parts problems, particularly when the original manufacturer has ceased production. Certain parts of original manufacture are available for a given aircraft for a number of years after its departure from military status. If original manufacturer fabrication can be substantiated for such parts, they are acceptable providing they comply with all applicable airworthiness directives.

G. Certain parts for ex-military or concurrently manufactured aircraft are and have been scarce. Occasionally, parts other than the original or approved manufacturer produce these parts illegally and offer them for sale. These illegal parts constitute a hazard to flight safety.

H. Parts manufactured in foreign countries and supplied to Nigerian certificated operators for use on their aircraft must have foreign regulatory authority approval for export, and meet original certificated type design.

## 6.0 PROCEDURES

A. Coordination. This task requires coordination between the involved airworthiness inspectors and the operator.

B. References

- US-FAA Advisory Circular 20-62, Eligibility, Quality, and Identification of Approved Aeronautical Replacement Parts, as amended
- US-FAA Advisory Circular 43.13-1, Acceptable Methods, Techniques and Practices - Aircraft Inspection and Repair, as amended.

C. Review Operator's Manual for Parts Pool Authorization. Ensure the manual includes:

(1) Procedures to ensure qualified personnel of the operator's organization perform an initial inspection of the involved foreign facilities. This inspection should ensure that facilities meet the certificate holder's manual requirements, have properly qualified and trained personnel, and can furnish the parts intended.

(2) Procedures to provide for biennial inspection of the foreign facilities to ensure continued conformity to the operator's manual in supplying the required parts.

(3) Inclusion of, or reference to, the foreign facilities' maintenance programmes in the operator's manual, if possible.

D. Inspect the Parts Pool Authorization Facility. The inspector must inspect the facility according to guidance for inspecting maintenance facilities.

E. Review Operator's Manual for Parts Borrowing Authorization Procedures.

(1) Ensure the manual includes the following procedures:

(a) Procedures that restrict the overhaul time limits to those authorized by operations specifications

(b) Procedures that restrict a remaining minimum time to overhaul to that authorized by operations specifications

(2) Ensure the operator has an approved list of authorized vendors, repair stations, and air carriers from which it may borrow parts.

F. Analyze Results. Advice the operator of any deficiencies discovered during the inspection. Schedule a meeting with the operator to discuss and/or resolve the problem area(s).

## 7.0 TASK OUTCOMES

A. Successful completion of this task will result in issuance of the following operations specifications:

- Parts Pooling Authorization, Operation Specifications Paragraph D-59
- Parts Borrowing Authorization, Operations Specifications Paragraph D-54

B. Document Task. File all supporting paperwork in the operator's office file.

## 8.0 FUTURE ACTIVITIES

Normal surveillance.