



U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: DETECTING AND REPORTING
SUSPECTED UNAPPROVED PARTS

Date: 7/16/92

AC No: 21-29A

Initiated by: AIR-200 Change:

1. PURPOSE. This advisory circular (AC) provides information and guidance to the aviation community for detecting and reporting suspected unapproved aircraft parts, and includes procedures for referral of such reports to the appropriate Federal Aviation Administration (FAA) office. This AC also includes FAA Form 8120-11, Suspected Unapproved Parts Notification (see appendix 1), which provides a standardized method of reporting suspected unapproved parts to the FAA. The guidance is relevant to any member of the aviation community concerned with installation of parts, including repair stations and manufacturers of aeronautical products.

2. CANCELLATION. AC 21-29, Reporting Suspected Unapproved Parts, dated August 6, 1991, is cancelled by this revision.

3. REFERENCES.

a. Federal Aviation Administration (FAR), 14 Code of Federal Regulations (C.F.R.) § 21.305, Approval of Materials, Parts, Processes, and Appliances.

b. FAR Part 43, Maintenance, Preventive Maintenance, Rebuilding, and Alteration.

c. FAR Part 145, Repair Stations.

d. 49 C.F.R. Part 7, Public Availability of Information.

e. AC 20-62, Eligibility, Quality, and Identification of Approved Aeronautical Replacement Parts.

f. AC 21-20, Supplier Surveillance Procedures.

4. DEFINITIONS. The following terms have the meaning listed when used in this AC.

a. Unapproved part. A part, component, or material that has not been manufactured in accordance with the approval procedures in FAR § 21.305 or repaired in accordance with FAR Part 43; that may not conform to an approved type design; or may not conform to established industry or U.S. specifications (standard parts). Such unapproved parts may not be installed on a type certificated product.

NOTE: Examples of an unapproved part include, but are not limited to:

(1) "Counterfeit" or fraudulently marked parts, components, or materials;

(2) Parts shipped directly to users by a manufacturer, supplier, or distributor who does not hold, or operate under the authority of, a production approval for the part (e.g., production overruns); and

(3) Parts that have been maintained or repaired and returned to service by persons or facilities not authorized under FAR Parts 43 or 145.

b. Reporter. Any person who furnishes a suspected unapproved part notification, FAA Form 8120-11 to the FAA or calls the FAA Aviation Safety Hotline to provide information concerning a suspected unapproved part.

c. Production overruns. Are parts that a manufacturer produces in addition to those authorized by the production certificate holder.

5. RELATED READING MATERIAL. AC 20-62, Eligibility, Quality, and Identification of Approved Aeronautical Replacement Parts, contains guidance and information regarding eligibility and traceability of aeronautical parts and materials to be installed on type certificated products.

6. DISCUSSION.

a. Under § 603(c) of the Federal Aviation Act of 1958, as amended, the concept of airworthiness of an aeronautical product is that the product conforms to an approved design and is in a condition for safe operation. In order for the product to continue to be airworthy, any replacement or modification parts installed

must also conform to an approved type design. The implementation of this concept in the regulations appears in FAR Part 21, Certification Procedures for Products and Parts, which requires aircraft parts to be approved, and in the maintenance rules of Part 43, which requires installers to use approved parts.

(1) FAR § 21.305 requires that whenever a material, part, process, or appliance is required to be approved, it may be approved under a Parts Manufacturer Approval (PMA), Technical Standard Order (TSO) authorization, in conjunction with type certificated product procedures, or in any other manner approved by the Administrator. The FAR concerning each of these production approvals require the holder to establish and maintain a quality control or fabrication inspection system (depending upon type of production approval authorized) that ensures that each part presented for approval conforms to its approved type design and is in a condition for safe operation.

NOTE: Parts used in a one-only Supplemental Type Certificate modification do not have to be produced under a PMA, because they are considered to have been produced under FAR 21, Subpart E, Type Certificate requirements.

(2) The airworthiness of an aeronautical product containing parts not produced in accordance with the above requirements (unapproved parts) are in question because the parts' type design and quality are unknown. Identification of unapproved parts is often difficult, due to the similarity of unapproved part characteristics to those of approved parts. The current criteria required by FAR § 21.143 used to confirm the authenticity and quality of products during receiving inspection, and testing generally has assumed vendor integrity and does not focus on detecting unapproved parts.

b. In order to assist the aviation community and the FAA in assessing and taking action when unapproved aircraft parts are detected, the FAA has established procedures for reporting discoveries of suspected unapproved parts. Reports of suspected unapproved parts may originate from various sources such as: audits, facility surveillance, letters or telephone calls, Congressional inquiries, accident or incident investigations, service difficulty reports, or from Department of Transportation, Office of Inspector General investigations. Concerns have been raised with reports of unapproved parts offered for sale for use on type certificated aircraft or related products. Therefore, this AC is being issued to provide guidance for detecting and reporting suspected unapproved parts.

7/16/92

c. This AC also contains guidance for the aviation industry who install parts on type certificated products for modifying their current quality control systems to improve the chances for detection of unapproved parts.

7. DETECTION PROGRAM.

a. Procurement process. A procedure to prevent procurement of unapproved parts should be established prior to purchasing parts and material for installation in type certificated products. This procedure should include the following as a minimum:

(1) Methods to establish qualified suppliers who are authorized to manufacture or distribute parts they supply.

(2) Criteria to identify and screen potential unapproved parts suppliers. The criteria should include the following considerations:

(a) The quoted price or the price advertised in trade magazines is significantly lower than the price quoted by other suppliers of the same part.

(b) A delivery schedule that is significantly shorter than that of other suppliers of the same part when existing stocks are exhausted.

(c) The inability of a supplier to provide drawings, specifications, overhaul manuals, or substantiating data demonstrating the conformity of the part or parts repair/overhaul.

(d) The inability of a supplier or repair station (in the case of a repair or overhaul) to provide evidence of FAA approval for the part or repair station.

(e) Sales quotes or discussions that create the perception that an unlimited supply of parts, components, or material are available to the end user.

b. Supplier product acceptance. Procedures should be established to identify and screen potential unapproved parts provided by suppliers, and prevent their acceptance. These procedures should include the following:

(1) A procedure for receiving inspection activities that would help to detect unapproved parts. This procedure should include the following indicators:

(a) A visual inspection to determine if the

product container reveals it is marked with another supplier's name, is unmarked, or damaged.

(b) A cross check of the purchase order with the delivery receipt for proper part number or component history card.

(c) A means of ensuring that shelf life has not expired.

(d) A means of verifying that part identification requirements have been met (e.g. serial number stamped over, label is improper or missing, vibro-etch or serial numbers located at other than the normal location).

(e) A means of determining evidence of visual defects or abnormalities (e.g. altered or unusual surface, absence of required plating, evidence of prior usage, scratches, new paint over old, attempted exterior repair, pitting or corrosion).

(f) A sampling plan that is adjusted (tightened or loosened) to match individual part types and quantities, i.e., bolts, nuts, or other standard hardware packaged in large quantities in a single container.

(2) Supplier audits. Procedures should be established to conduct audits of suppliers on a scheduled basis, to ensure that suppliers have established and continue to maintain the quality system specified in purchase orders. The following are examples of subsystems that should be included in an audit program.

(a) Design Data Control, to include latest revision, if applicable.

(b) Supplier Control.

(c) Material Handling/Control.

(d) Manufacturing/Assembly Control.

(e) Tool and Gauge Control.

(f) Tests and inspections.

(g) Records.

Note: Additional information and guidance may be obtained from AC 21-20, Supplier Surveillance Procedures.

8. REPORTING PROCEDURES.

a. Federal Aviation Administration Form 8120-11 identifies the information needed to initiate an investigation of suspected unapproved parts, and may be obtained at any local FAA office. When a suspected unapproved part is discovered, FAA Form 8120-11 should be completed and forwarded immediately to:

Federal Aviation Administration
System Surveillance and Analysis
Division, AIR-300
P.O. Box 17030
Washington, DC 20041

b. In addition, suspected unapproved parts may also be reported by telephone via the FAA Aviation Safety Hotline (800) 255-1111.

c. The phrase "Suspected unapproved parts" is utilized throughout FAA Form 8120-11 and this AC because the FAA recognizes that reporters may be discouraged from reporting discoveries of suspected unapproved parts out of fear of libel accusations. Although submission of the reporter's name in FAA Form 8120-11 is strictly voluntary, it is highly desirable information to enable the FAA to verify facts and follow-up with the reporter during the course of the investigation.

d. It is the FAA's policy to encourage persons to disclose information regarding safety violations or other circumstances affecting aviation safety.

e. Suspected unapproved part information is generally considered available to the public upon request, except those internal FAA analysis which are still considered preliminary, preparatory for FAA enforcement action, supporting FAA policy formulation, or affecting national security, and information relative to any ongoing criminal investigation.

f. All requests for information regarding suspected unapproved parts will be processed in accordance with C.F.R. Part 7, Public Availability of Information.



M.C. Beard
Director, Aircraft Certification
Service

SUSPECTED UNAPPROVED PARTS NOTIFICATION

1. Date: _____		2. Nomenclature: _____	
3. Part No.: _____		4. Serial No: _____	
5. Next Assembly Name & No: _____	6. Quantity: _____	7. Make/Model: _____	
8. Part Manufacturer/Distributor:			
Name: _____			
Street: _____ City: _____			
State/Country: _____ Zip: _____			
9. Description of Complaint:			
10. Date Suspected Unapproved Part Discovered: _____			
11. Location Where Part was Discovered:			
Name: _____			
Street: _____ City: _____			
State/Country: _____ Zip: _____			
<div style="display: flex; justify-content: space-between;"> <div> <p>Check One That Applies:</p> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 45%;"> <input type="checkbox"/> Manufacturer <input type="checkbox"/> Distributor <input type="checkbox"/> Other _____ </div> <div style="width: 45%;"> <input type="checkbox"/> Supplier <input type="checkbox"/> Repair Station </div> </div> </div> </div>			
12. Reporters Name:			
Name: _____		Telephone No: _____	
Street: _____		City: _____	
State/Country: _____		Zip: _____	
13. <input type="checkbox"/> Check here if you wish your identity to be kept confidential			

SUSPECTED UNAPPROVED PARTS NOTIFICATION

1. Date: _____		2. Nomenclature: _____	
3. Part No.: _____		4. Serial No: _____	
5. Next Assembly Name & No: _____	6. Quantity: _____	7. Make/Model: _____	
8. Part Manufacturer/Distributor:			
Name: _____			
Street: _____ City: _____			
State/Country: _____ Zip: _____			
9. Description of Complaint:			
10. Date Suspected Unapproved Part Discovered: _____			
11. Location Where Part was Discovered:			
Name: _____			
Street: _____ City: _____			
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<div style="display: flex; justify-content: space-between;"> <div> <p>Check One That Applies:</p> <p><input type="checkbox"/> Manufacturer</p> <p><input type="checkbox"/> Distributor</p> <p><input type="checkbox"/> Other _____</p> </div> <div> <p><input type="checkbox"/> Supplier</p> <p><input type="checkbox"/> Repair Station</p> </div> </div>			
12. Reporters Name:			
Name: _____		Telephone No: _____	
Street: _____		City: _____	
State/Country: _____		Zip: _____	
13. <input type="checkbox"/> Check here if you wish your identity to be kept confidential			

FAA FORM 8120-11 INSTRUCTIONS

1. Date notification is submitted.
2. Identify the name of the suspected unapproved part.
3. Part number, or any other number on part.
4. Serial number of part.
5. List next higher assembly that suspected unapproved part is assembled into (i.e., fuel pump, engine, landing gear) and list part number, if known.
6. Quantity of suspected unapproved parts found or identified.
7. Make and model number of the aircraft or related product suspected unapproved part is applicable to.
8. Enter identification of the commercial source of the suspected unapproved part. If part is identified with part Manufacturer or Distributor marking, please enter.
9. Describe any pertinent facts relating to the suspected unapproved part and identify where part may be inspected (provide photos, invoices, etc., if available).
10. Date suspected unapproved part was discovered.
11. Air Carrier, Manufacturer or Distributor name and address in full where suspected unapproved part was discovered. Check block that best describes facility. If "other" is selected, please specify.
12. Reporter's name and address in full. This information may be used by the FAA offices only to obtain additional information, if warranted.
13. Check this box if you wish your identity to be kept confidential.

Completed FAA Form 8120-11 should be forwarded to:

Federal Aviation Administration
System Surveillance and Analysis Division, AIR-300
P.O. Box 17030
Washington, DC 20041

SUSPECTED UNAPPROVED PARTS NOTIFICATION

1. Date: November 22, 1991		2. Nomenclature: Support Assembly	
3. Part No.: 644179		4. Serial No: 8120	
5. Next Assembly Name & No: Housing Assembly, P/N 614113	6. Quantity: 16	7. Make/Model: Boeing 727	
8. Part Manufacturer/Distributor:			
Name: Amhurst Parts Manufacturers			
Street: 795 Richard Road		City: Boston	
State/Country: Massachusetts		Zip: 02190	
9. Description of Complaint:			
<p>During installation of a support assembly P/N 644179 onto the housing assembly P/N 614113, it was noted that the support assembly looked and weighed different than usual. An analysis of the parts by Acme Testing Company revealed the assemblies are dimensionally correct, however, the material used was incorrect. The material used would crack under prolonged stress and vibration.</p> <p>The 16 assemblies were purchased from Jones Parts Distributorship, 122 Smith Road, Boston, MA., 02170 on September 15, 1991. (See attached invoices)</p>			
10. Date Suspected Unapproved Part Discovered: November 1991			
11. Location Where Part was Discovered:			
Name: Logan Repair Center, Building 101			
Street: Logan Airport		City: Boston	
State/Country: Massachusetts		Zip: 02190	
<div style="text-align: center;">Check One That Applies:</div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> Manufacturer <input type="checkbox"/> Distributor <input type="checkbox"/> Other _____ </div> <div style="width: 45%;"> <input type="checkbox"/> Supplier <input checked="" type="checkbox"/> Repair Station </div> </div>			
12. Reporters Name:			
Name: Mr. John T. Smith		Telephone No: 617-555-0202	
Street: P.O. Box 661		City: Boston	
State/Country: Massachusetts		Zip: 01921	
13. <input type="checkbox"/> Check here if you wish your identity to be kept confidential			