

Advisory Circular

SUSPECTED UNAPPROVED PARTS

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- 1 **GENERAL.** Advisory Circulars (ACs) are issued by the Civil Aviation Authority of Singapore (CAAS) and contain information about standards, practices and procedures acceptable to the Authority. The revision number of the AC is indicated in parenthesis in the suffix of the AC number.
- 2 **PURPOSE.** This Advisory Circular (AC) provides information to air operators, aircraft maintenance organisations and distributors on existing requirements for approved parts and the handling of Suspected Unapproved Parts (SUPs). Guidance is also given on how the detection of SUPs should be reported to the CAAS.
- 3 **APPLICABILITY.** This AC applies to operators of Singapore aircraft, all SAR-145 Aircraft Maintenance Organisations (AMO) and all SAR-145 Sub Part D Distributors.
- 4 **CANCELLATION.** This is the first AC issued on this subject.
- 5 **EFFECTIVE DATE.** This AC is effective from 23 July 2010.
- 6 **REFERENCES.** SAR Part 145 Aircraft Maintenance Organisations 145.60, SAR Part 145 Aircraft Maintenance Organisations Sub part D and AC 145-3(3) Acceptability of Parts.
- 7 **INTRODUCTION.**
 - 7.1 CAAS is concerned about the possible installation of unapproved parts inadvertently on Singapore-registered aircraft. The installation of unapproved parts on aircraft has serious airworthiness implications.
 - 7.2 Unapproved parts include counterfeit parts with falsified release documentation. Genuine approved parts are manufactured and tested to airworthiness standards by qualified personnel, and are hence likely to be costlier than similar parts meant for non-aviation applications. This difference in cost has resulted in cases of unapproved parts with falsified release documentation being passed off as genuine approved parts. Two such known cases are:
 - (a) A helicopter main rotor blade complete with release documentation was traced as having been scrapped by the manufacturer during the manufacturing process; and
 - (b) An engine mount described as fitted new to an aircraft in 1979 was traced as having been factory installed in 1966.

8 APPROVED PARTS.

8.1 Approved parts are parts

- (a) that are manufactured or maintained by CAAS approved organizations; or
- (b) originate from a list of countries accepted by CAAS.

8.2 The different categories of approved parts are detailed below.

- (a) New parts manufactured by organisations holding a SAR-21 Production Organisation Approval granted by CAAS;
- (b) New parts manufactured by production organisations approved by the local Civil Aviation Authorities in the list of countries contained in SAR-145 subpart D;
- (c) Used parts maintained by organisations holding a SAR-145 Aircraft Maintenance Organisation (AMO) granted by CAAS;
- (d) Used parts maintained by maintenance organisations approved by the local Civil Aviation Authorities in the list of countries contained in AC 145-3(3); and
- (e) Parts distributed by a distributor holding a SAR-145 Subpart D approval granted by CAAS.

9 UNAPPROVED PARTS.

9.1 Parts that do not conform to the conditions listed above under section 2 are unapproved parts and cannot be installed onto Singapore-registered aircraft.

9.2 Unapproved parts also include, but are not limited to;

- (a) Parts that have been intentionally misrepresented, including counterfeit parts that are accompanied by falsified release documentation.
- (b) New parts that were manufactured in accordance with approved data and procedures by an approved manufacturer but did not pass through an approved quality system and is not accompanied by proper documentation, eg production overruns.
- (c) New parts that were manufactured in accordance with approved data and procedures by an approved manufacturer, and passed through an approved quality system but do not conform to the approved design / data, eg defective parts that were missed during the manufacturer's quality checks.
- (d) Used parts that were not maintained in accordance with approved airworthiness data and procedures, or were maintained by unauthorised persons.

10 PARTS ORIGINATING FROM SURPLUS UNITED STATES MILITARY STOCK.

10.1 Parts that originate from surplus United States military stocks are not approved parts. The United States Department of Defense (DOD) has a programme called "BREAKOUT". Under this programme the DOD uses manufacturer approved drawing, obtained under the terms of production contracts with the original equipment manufacturer, and contracts the manufacture of these parts to third parties.

10.2 These manufacturers of the "BREAKOUT" parts may not have the stringent quality controls that are required by the aircraft/component type certificate holder to satisfy FAA requirements. For example, periodic conformity inspections and destructive tests to assure the continued quality of the product may not have been undertaken.

10.3 The US government may also substitute military specification in lieu of original approved material and process specifications; thereby developing parts that do not necessarily conform to the FAA approved civil type design.

10.4 The usage or installation of these parts on Singapore-registered aircraft is not allowed.

11 ACTIONS BY AIR OPERATORS, AMOs AND DISTRIBUTORS.

11.1 CAAS stresses that distributors must be vigilant to ensure that parts supplied to users are thoroughly checked and are approved parts. AMOs must also be vigilant in their receiving inspections to ensure that only approved parts are inducted into their stores. Users must check all parts received, whether new or used, to ensure that only approved parts are accepted.

11.2 Any parts that, for any reason, are suspected to be unapproved, should be quarantined and properly disposed of once investigations conclude that they are unapproved parts. Reasons for suspecting a part to be unapproved may include findings such as different finish, size, colour, improper (or lack of) identification, incomplete or altered release documents, or any other questionable indication. These cases should be immediately reported to CAAS, the Type Certificate Holder, and if applicable, the operator.

12 REPORTING.

12.1 In the event that a suspected unapproved part is identified, the person, maintenance organisation, distributor or operator detecting it should make a report using CAAS form AW/133 listed in Appendix 1 and furnish the required information. The completed form can be sent or faxed to the address listed below:

**Director Airworthiness & Flight Operations
Civil Aviation Authority of Singapore
Airworthiness and Flight Operations Division
Singapore Changi Airport
P.O Box 1, Singapore 918141
Fax – 65456519**

12.2 Block 12 of CAAS AW 133 does not have to be completed if the reporter is not willing to provide that information.

SUSPECTED UNAPPROVED PARTS REPORT

Refer to page 2 for instructions on how to complete this form.

1. Date the part was discovered:		2. Part Name:	
3. Part Number:		4. Part Serial Number:	
5. Quantity:	6. Assembly Name: Assembly Number:	7. Aircraft Make & Model:	
8. Name, address and description of the company or person who supplied or repaired the part:			
Name:		Street Address:	
City:	State:	Postal Code:	
9. Description of the Issue:			
10. Name and address of (the Company or Person) where the part was discovered:			
Name:		Street Address:	
City:	State:	Postal Code:	
Country:		Phone Number:	
11. Date of this report:			
12. Name and address of the reporter:			
Name:		Street Address:	
City:	State:	Postal Code:	
Country:		Phone Number:	
13. <input type="checkbox"/> Check this box if you have attached additional information.			

Instructions for Completing CAAS AW/133, Suspected Unapproved Parts Report

1. Record the date the part was discovered.
2. Record the part name (or description of the part).
3. Record the part number or identification number of the part.
4. Record the serial number on the part, if applicable.
5. Record the quantity of the parts.
6. Record the assembly name and the assembly number (where the part was or could be installed).

Example:

1. Date the part was discovered:		2. Part Name: Strut
3. Part Number: PN 12345		4. Part Serial Number: 678
5. Quantity: 1	6. Assembly Name: Main Landing Gear Assembly Number: PN 90101112	7. Aircraft Make & Model:

NOTE: Record additional part numbers on page 3 or a blank sheet of paper with the following column headers:

Part Name – Part Number – Serial Number – Quantity – Assembly Name – Assembly Number

7. Record the type of aircraft the part was (or could be) installed on.
8. Record the complete name and address of the company or person who produced, repaired, and/or sold the part. Do not list a P.O. Box address unless a street address is not available.
9. Record a brief narrative stating why you believe the part is not approved. Include a description of the part (improper configuration, suspect marking, different materials, etc), where it was obtained, and what type of documentation was supplied with it.
10. Record the complete name and address of the location where the part was found.
11. Record the date the report was submitted.
12. Stipulate the name and address of the reporter.
13. Check this box if you have attached additional information.