



AIRWORTHINESS BULLETIN

AWB 02-057 Issue 1 – 9 August 2017

Fitting of a component in an aircraft that has been removed or salvaged from another aircraft

1. Effectivity

Any aircraft to which maintenance requirements of Part 4A of Civil Aviation Regulation (CAR) 1988 apply.

2. Purpose

To provide guidance on the proper use of a component that has been removed or salvaged from another aircraft.

3. Background

Paragraph 42W(2)(c) of CAR permits fitting of a component to an aircraft that has been removed or salvaged from another aircraft provided there is no need to carry out any maintenance on the component before it is fitted. The paragraph requires the person fitting the component to ensure that the component is not damaged and complies with its manufacturer's specifications. Also, paragraph 42W(2)(a) of CAR requires the component to be serviceable; the only exception being an unserviceability that is approved as a permissible unserviceability for the aircraft to which the component is being fitted.

4. Recommendations

Aircraft from which a component is removed for subsequent use in another aircraft may either be in service or out of service. However, in all cases:

- a) the continuing airworthiness records for the aircraft from which the component is removed should be examined to establish the condition of the component,
- b) removal of the component should be carried out in a controlled environment,
- c) a general visual inspection of the component should be carried out to detect any damage or deterioration to the component,
- d) the component should be stored properly to prevent deterioration and damage, and
- e) appropriate records should be created to establish traceability of the component.



The continuing airworthiness records for the aircraft from which a component is removed should be carefully examined to determine if there is any defect in the aircraft that affects the component. Any defect in the component would render the component unserviceable. Paragraph 42W(2)(a) of CAR restricts installation of an unserviceable component unless the defect in the component has been approved as a permissible unserviceability under regulation 37 of CAR.

If the component is subject to a life limit, the continuing airworthiness records should be examined to ensure that the life limit has been accurately and authentically documented. A life limited component should never be fitted to an aircraft if the component has reached its life limit.

The continuing airworthiness record for the source aircraft should also be examined to ensure that the component has not been subjected to extreme loads, extreme temperatures or immersion in a liquid resulting in damage or deterioration of the component. This is particularly important for components being salvaged from aircraft that have been involved in incidents or accidents. Examples of incidents that may cause to a component to be subjected to extreme loads include heavy or hard landing, flight in severe turbulence and propeller ground strike.

Exposure to extreme temperatures can be caused by fire or in case of an engine component, by engine over temperature. Natural calamities such as flood may cause immersion related damage to a component. While some components may be totally unaffected by any accident or incident, it is essential to obtain clear evidence that this is the case as some of the damage or deterioration may not be visible but may still render the component unsalvageable. If such evidence cannot be obtained, the item should not be fitted to an aircraft.

If the aircraft from which the component is removed has been out of service for an extended period, there is a need to verify that the aircraft and the associated component has been preserved in accordance with the applicable instructions for continuing airworthiness and has been protected from environmental factors.

The removal of the component should be treated as normal maintenance and should be carried out in accordance with the requirements of CAR. A maintenance facility that is appropriate for the maintenance should be used. Only qualified and competent personnel who are permitted under the regulation to replace the component in the aircraft should carry out the removal. Applicable approved maintenance data should be followed and any tools or equipment specified in the data should be used to remove the component. This would ensure that the component is not damaged or degraded during removal.

After the removal, a general visual inspection of the component should always be carried out to ensure that the component has not suffered any damage or deterioration. It should be noted that paragraph 42W(2)(c) of CAR only allows fitting of a component in an aircraft that has been removed or salvaged from another aircraft if no maintenance has been carried out on the component after its removal. However, this should not prevent a general visual inspection of the component as it would not be considered maintenance.



If there is any doubt about the serviceability of a component, the condition of the component should be assessed by a maintenance organisation that holds the appropriate rating to carry out maintenance on the component. The component should only be used after the maintenance organisation has carried out the necessary maintenance to make it serviceable and has issued an authorised release certificate in relation to the maintenance carried out.

A record for the removal of the component should be created in a suitable worksheet and should be attached with the component to establish its identity and traceability for its subsequent fitment to an aircraft. The record should include the following information:

- a) the registration mark or serial number of the aircraft from which the component has been removed,
- b) the name of the component,
- c) the location of the component in the aircraft,
- d) the part number, and if applicable, the serial number of the component,
- e) condition of the component in terms of whether it is serviceable or unserviceable,
- f) if the component is unserviceable, the reason for unserviceability,
- g) if the component is subject to regular maintenance such as overhaul or inspection – time since last maintenance,
- h) if the component is subject to life limit – the expended life of the part,
- i) if applicable, name and certificate of approval number of the maintenance organisation,
- j) name, signature and licence number of the individual who removed the component, and
- k) the date of removal.

If necessary the registered operator of the aircraft should be contacted to obtain information in relation to any regular maintenance or life limit that may apply to the component. The record of removal may be in the form of a serviceable or unserviceable tag, as appropriate, provided all the above mentioned information for the component is included in the tag.

If the removed component is to be stored, it should be stored in an appropriate manner to ensure that the condition of the component does not deteriorate during storage. Any specific storage instruction from the manufacturer of the component should be followed. All open connections of the component should be blanked to prevent contamination of and damage to the component.

When the component is fitted to an aircraft, the maintenance record of fitting the component should include the following information in relation to the component:

- a) registration mark or serial number of the aircraft from which the component has been removed,



- b) the location of the component in the aircraft from which the component has been removed, and
- c) part number, and if applicable, the serial number of the component.

In addition, a copy of the record of removal should be attached with the maintenance record for the retention by the registered operator of the aircraft. This would enhance traceability of the component to its source.

Finally, the person fitting the component in an aircraft must ensure that the registered operator of the aircraft agrees to the fitting of the component. This is important as the registered operator may have to establish subsequent maintenance requirements for the component, including establishing compliance with the aircraft's maintenance program and applicable airworthiness directives. There may also be a need to verify compatibility of the component with the existing aircraft configuration.

Maintenance organisations are encouraged to include appropriate procedures in their manual in line with the advice provided in this airworthiness bulletin.

5. Reporting

There is no reporting requirement for this Airworthiness Bulletin.

6. Enquiries

Enquiries with regard to the content of this Airworthiness Bulletin should be made via the direct link email address:

AirworthinessBulletin@casa.gov.au

or in writing, to:

Airworthiness and Engineering Standards Branch
Standards Division
Civil Aviation Safety Authority
GPO Box 2005, Canberra, ACT, 2601