

GOVERNMENT OF INDIA
CIVIL AVIATION DEPARTMENT

CIVIL AVIATION REQUIREMENTS
SECTION 2 - AIRWORTHINESS
SERIES 'F' PART VI
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EFFECTIVE : FORTHWITH

Subject: Rebuilding of Aircraft

1. PURPOSE

Aircraft Rule 53 and 53A together prescribe the requirement regarding use of materials process to be used during manufacture of aircraft and also the persons authorised to certify the manufacture of aircraft while Rule 50 empowers the DGCA to issue/renew or revalidate the Certificate of Airworthiness. This CAR lays down the detailed requirement for rebuilding of aircraft which were damaged or purchased as wreckage from insurance companies or purchased parts/spares from abroad. Only such aircraft will be permitted to be re-built which were earlier type-certificated and had been flying with Certificate of Airworthiness and in respect of which sufficient data regarding maintenance and performance standards are available.

2. DEFINITION

Constructor : means any person who assembles an aircraft either himself or taking help from another person or company utilising various aircraft parts and spares.

Aircraft Parts : Aircraft parts, in context of this CAR includes fuselage wing, tail plane and other components.

Rebuilding : Means assembling an aircraft from parts which are already manufactured to an acceptable airworthiness standard and were hitherto fitted to type-certificated aircraft or were meant for installing on such aircraft.

3. APPLICABILITY

This CAR applies to all aircraft assembled from spares purchased or imported and which were not supplied as a complete aircraft kit for the purpose of assembling a serviceable aircraft. Unpressurised aircraft of all up weight of 3000 kgs. or below would be covered under this CAR. Rebuilding of aircraft of weight more than 3000 kgs. would be considered on individual case basis for which an application has to be made to the Director General of Civil Aviation.

4. PROCEDURE OF REGISTRATION

All requests for registration of aircraft which are likely

to be assembled by persons utilising parts either purchased from outside or from within the country will be only entertained provided that the person requesting for registration has positive intention to assemble the aircraft for the purpose of flying. The owner/person would apply to the Director General of Civil Aviation through the Regional Airworthiness Office for registration of aircraft alongwith a survey report indicating the details of serial number of parts etc. in the prescribed form alongwith the fees. He would also indicate the source of procurement of parts/spares. The Regional Airworthiness Officers would ascertain genuineness of the request and after being recommended by them a temporary Certificate of Registration will be issued for a period of one year which can be extended in exceptional cases upto two years. Permanent registration will be allotted only when the constructor forwards a certificate duly certified by an Aircraft Maintenance Engineer having licence endorsed in Category 'B' that the aircraft is nearing completion and request for issue of certificate of airworthiness would be forwarded soon.

4.1 Identification of rebuilt aircraft

Each rebuilt aircraft will have to be assigned a serial number by the constructor. This number will normally be the number assigned the fuselage. However, owner/constructor may allow a serial number after getting approval from the Regional Airworthiness Office. The constructor number will be affixed to the fuselage/aircraft structure by a permanent means. Aircraft will be assigned same registration number which was given to aircraft of which the fuselage was a part. In case of new fuselage or imported fuselage, new registration mark will be allotted.

4.2 Procedure to be followed by Operator

Before a constructor starts assembling an aircraft he must ensure the following:

- i) Parts purchased are genuine
- ii) Proper history of the parts.
- iii) In case of the fuselage has been imported, a certificate from the registration authority of that country that the aircraft has been de-registered from their records;
- iv) As far as possible, all release documents, export certificate of airworthiness in respect of the parts purchased whenever possible original log books should also be obtained and scrutinised to ensure that the parts are properly stored.

The constructor must make arrangements with an appropriately licenced Aircraft Maintenance Engineer in Category 'B' or an approved organisation for rebuilding the aircraft. It will be responsibility of the engineer certifying the work to ensure that the correct aeronautical engineering practices are used during the assembling. Proper tools, drawings etc. are made available to him by the owner to ensure proper assembling and he would also ensure that the various airworthiness requirements applicable to aircraft including modification standards are complied with. Wherever parts had been under a long storage, it will be the responsibility of the Aircraft Maintenance Engineer to properly inspect for evidence of damage due to environmental factors. All aircraft parts stored for more than five years must be completely strip inspected/overhauled prior to assembling of aircraft.

Major Components

Fuselage: The fuselage must have proper history before it can be utilised in rebuilding the aircraft. In case it has been imported from outside, it must have an export certificate of airworthiness. However, if it has been purchased from disposal stock, it must be ensured that the aircraft to which it belonged, has been deregistered in the country where it was earlier registered. The total hours run by the fuselage must be ascertained. In case it is not possible, 300 hrs. per year must be added after the date of manufacture.

Wings: Aircraft wings must be properly inspected for damage due to corrosion, cracks etc. If it is fabric covered the fabric must be completely stripped, structure thoroughly examined and recovered with new fabric and protective paints/dope applied.

Landing Gear: If the landing gear has got shock absorbing device, it must be completely dismantled and service after replacing various seals and rubber parts and charged with fresh fluid.

Other components: These should also be thoroughly inspected for any damage, corrosion and repaired/overhauled wherever necessary.

Procedure for issue of Certificate of Airworthiness

After the aircraft has been registered and assembled as mentioned above, the constructor may apply for issue of C of A requirements for which CAR series 'F' Part III will apply for the purpose. The test flight of such an aircraft will be carried out by a commercial pilot licence holder using an approved test flight schedule. The aircraft must be weighed and a fresh weight and balance documents prepared.

Flight Manual

In case the original aircraft was issued with an approved Flight Manual, the constructor must produce a copy of the same and produce evidence to the Regional Airworthiness Office that the Flight Manual is upto date and covers the particular type of aircraft which has been rebuilt. Any deviation, modification to the original aircraft design must be properly got approved and flight manual a supplement be added if it affects the operation.

Director General may refuse issue of C of R/ C of A if owner/ constructor is not able to produce sufficient evidence regarding the genuineness of parts and use of correct assembly technique.

Sd/-

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