CIVIL AIR REGULATIONS

PART 18—MAINTENANCE, REPAIR, AND ALTERATION OF CERTIFICATED AIRCRAFT AND OF AIRCRAFT ENGINES, PROPELLERS, AND INSTRUMENTS

As amended to August 15, 1949


CIVIL AERONAUTICS BOARD

WASHINGTON, D. C.

Sec. 18.1 Definitions. As used in this part: (a) "Aircraft engine" means an aircraft engine approved by the Administrator. (b) "Propeller" means a propeller approved by the Administrator. (c) "Instrument" means an instrument installed, for other than purely experimental purposes, in a certificated aircraft. (d) "Manufacturer" means: (1) the holder of the type certificate, or approval by the Administrator, of an aircraft, aircraft engine, or propeller, or of the current rights, under a licensing arrangement, to the benefits of such type certificate or approval; or (2) the manufacturer of a part or accessory of a certificated aircraft, or (3) the manufacturer of an instrument which is installed in a certificated aircraft; Provided, That such manufacturer shall have in his employ a properly certificated mechanic in direct charge of maintenance, repair, or alteration operations.

MAINTENANCE, REPAIRS, AND ALTERATIONS

§ 18.5 Routine maintenance. Routine maintenance is defined as simple or minor preservation operations including but not limited to the adjustment of rigging and clearances, and the replacement of small standard parts not involving complex assembly operations.

§ 18.6 Repairs. A repair is any operation other than routine maintenance which is required to restore an aircraft, aircraft engine, propeller, or instrument to a condition for safe operation, including the mending or replacement of damaged or deteriorated parts.

(b) Minor repairs. Minor repairs are elementary repair operations executed in accordance with standard practices and not within the definition of major repairs.

(b) Major repairs. Major repairs are complex repair operations of vital importance to the airworthiness of an aircraft, including but not limited to:

(1) Straightening, splicing, welding and similar operations when the strength of important structural members might be appreciably affected thereby.

(2) Other cleanings and complicated or unconventional techniques or equipment.

§ 18.7 Alterations. An alteration is any appreciable change in the design of an aircraft, aircraft engine, propeller, or instrument.

(a) Minor alteration. A minor alteration is:

(1) An alteration having no appreciable effect on the weight, balance, structural strength, power-plant operation, flight characteristics, or other characteristics affecting the airworthiness of an aircraft.

(2) An alteration for which specific plans and instructions have been approved by the Administrator and which can be executed by means of elementary operations.

(b) Major alterations. Major alterations are all alterations not within the definition of minor alterations.

RULES AND PROCEDURES FOR MAINTENANCE, REPAIRS, AND ALTERATIONS

§ 18.10 Agencies authorized to perform maintenance, repair, and alteration operations. Maintenance, repair, and alteration operations shall be performed only by: (a) A certificated mechanic having the proper rating or a person working under the direct supervision of such mechanic; or (b) a certificated repair station having the proper rating; or (c) the manufacturer of the aircraft or part of the aircraft to be repaired; Provided, That all instrument repairs and alterations and propeller major repairs and major alterations shall be performed only by a certificated repair station having the proper rating or by the manufacturer.
repair or alteration and in case a manufacturer or a certificated repair station makes said repair or alteration the appropriate logbook shall also be signed by an authorized official of such agency. The installation of an instrument in an aircraft shall be recorded in the aircraft logbook by the agency making the installation.

§ 18.16 Major repair and major alteration records. A repair agency performing a major repair or major alteration on an aircraft, aircraft engine, or propeller, shall execute such Repair and Alterations Forms as may be prescribed and furnished by the Administrator, and shall deliver a duplicate copy of any such Form to the owner of the aircraft and make proper entries on the appropriate page of the Aircraft Operation Record.

§ 18.17 Provisions for air carrier records. Logbook and aircraft operation record entries required in this part may be replaced, in the case of repairs or alterations to scheduled air carrier aircraft, by a suitable system of recording repairs, alterations, and signatures of responsible personnel.

DESIGN, TECHNIQUES, AND MATERIALS

§ 18.20 Design, techniques, and materials. Repairs shall be so executed, and materials of such strength and quality shall be used that the condition of the repaired aircraft, aircraft engine, propeller, or instrument shall be at least equivalent to its original or a properly altered condition in regard to aerodynamic and mechanical function, structural strength, and resistance to vibration and deterioration, and all other qualities affecting airworthiness. Alterations shall be so designed and executed that the altered aircraft, aircraft engine, propeller, or instrument will comply with the airworthiness requirements in effect when the particular model of the aircraft or part of the aircraft was originally certificated and, in addition, with particular provisions of the current airworthiness requirements rendered necessary for safe operation by the alteration.

NOTICE

Advise the Civil Aeronautics Board, Washington 25, D. C., that you have purchased this part of the Civil Air Regulations and that agency will supply you with copies of amendments which have been issued since this printing. Be sure to specify the number of this part, otherwise your request cannot be filled.

If you wish to be informed of all future amendments to this and to other parts of the Regulations, subscribe to the monthly Civil Aeronautics Journal. All new regulations, amendments, and special regulations are carried in the Journal. Annual subscriptions are 75 cents, payable in advance by cash or money order, and are obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.
LSA Repairman Maintenance – U.S. FAA certificated repairman (light sport aircraft) with a maintenance rating as defined by 14 CFR Part 65, authorized to perform line maintenance on aircraft certificated as special LSA aircraft. Authorized to perform the annual. Any repair, alteration, or maintenance for which.

The LSA Airplane Savage is a sturdy aircraft, easy to maintain, and with the help of this manual you will be able to apply correct procedures. Eventual or any further modifications or variations will be advised through bulletins and alerts (SA, SB, Notifications). No aircraft is so tolerant of neglect that it is safe in the absence of an effective inspection and maintenance programme. The processes that affect an aircraft are deterioration with age (e.g. fatigue, wear and corrosion) as well as chance failures (e.g. tyre burst, excess structural loads). Aircraft maintenance can be defined in a number of ways and the following may help understand the different aspects. Propeller major repairs and alterations. Major repairs or alterations are only permitted within the context of this document or when a propeller manufacturer’s data approves that major repair or alteration. Maintenance records are a required part of aircraft maintenance. Propeller maintenance recordkeeping responsibility is ultimately assigned to the owner/operator of aircraft operated under 14 CFR part 91 in accordance with part 91, section 91.403. In some aircraft, it may be necessary to relieve engine compression (loosen spark plugs) and seek a calm day to eliminate outside disturbances that would cause an apparent tracking error. Draw a line on the block next to the blade tip position. Move the blade in a fore-and-aft direction and mark the limits of such motion.