



U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: Use of Manufacturers' Maintenance
Manuals

Date: 1/4/16

AC No: 20-77B

Initiated by: AFS-300 **Change:**

1. PURPOSE. This advisory circular (AC) informs owners and operators about the usefulness of manufacturer's maintenance manuals for servicing, repairing, and maintaining aircraft, engines, and propellers.

2. CANCELLATION. AC 20-77A, Use of Manufacturers' Maintenance Manuals, dated April 6, 2007, is canceled.

3. BACKGROUND. New materials and fabrication methods are being used, and sophisticated equipment is being installed in today's aircraft, which require maintenance instructions and techniques which are not common knowledge or used on older aircraft. Because of this complexity, it is more important that the owner and operator consider the manufacturer's information and recommendations concerning servicing, repair, and maintaining aircraft, engines, and propellers. Owners and operators should find the information contained in manufacturers' maintenance manuals an invaluable source of data on meeting these requirements.

4. DISCUSSION. Maintenance manuals issued under Title 14 of the Code of Federal Regulations (14 CFR) part 23, § 23.1529 and part 25, § 25.1529, and some earlier manuals, will contain information the manufacturer considers essential for proper maintenance of the aircraft, engines, and propellers. Some manuals may contain a complete, recommended, and detailed Continuous Airworthiness Maintenance Program (CAMP) that the owner or operator may choose to adopt.

a. Maintenance Manual Structure. In general, the manuals are likely to be structured as follows:

- A step-by-step, recipe format that provides continuity for recommended work schedules,
- Information logically sequenced to make it easy to find and use, and
- Easy-to-follow expanded view drawings, charts, or photographs supported by text.

b. Maintenance Manual Subject Matter. Subject matter likely to be displayed in this format is:

- (1) Description of electrical, hydraulic, and fuel controls systems, etc.
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(2) Lubrication instructions describing the manufacturer's recommended frequency, and the lubricants and fluids used in the various systems.

(3) Pressures and electrical loads applicable to the various systems.

(4) Tolerances and adjustments the manufacturer considers necessary for the aircraft to function properly.

(5) Methods of leveling, raising, and towing.

(6) Methods of balancing control surfaces.

(7) Identification of primary and secondary structures.

(8) Frequency and extent of inspections the manufacturer considers necessary for proper maintenance of the aircraft.

(9) Special repair methods applicable to the aircraft.

(10) Special inspection techniques, such as x ray, ultrasonic, magnetic particle inspection, etc.

(11) List of special tools.

5. RECOMMENDATIONS. The Federal Aviation Administration (FAA) recognizes that maintenance practices and requirements are not static and may change as information is developed during the service life of an aircraft. Manufacturers may provide a systematic manual revision system to implement changes to their maintenance instructions. Owner and operators should make allowances for such changes. The following is a list of situations when Service Bulletins (SB) would be regulatory and covers most situations aviation safety inspectors (ASI) encounter:

- All or a portion of an SB is incorporated as part of an Airworthiness Directive (AD).
- The SB is part of the FAA-approved Airworthiness Limitation Section (ALS) of the manufacturer's manual or the type certificate (TC) (compliance with a new or revised ALS issued by a design approval holder (DAH) or other entity, as a type design change, is not mandatory for in-service aircraft operating pursuant to 14 CFR part 91, unless the aircraft owner/operator voluntarily incorporates the change, or it is mandated by an AD or other previously agreed upon maintenance program).
- SBs are incorporated directly or by reference into some type of FAA-approved inspection program, such as an Approved Aircraft Inspection Program (AAIP) or CAMP.
- SBs are listed as an additional maintenance requirement in the certificate holder's operations specifications (OpSpecs).

NOTE: For this section only, all references to manufacturer's SBs will encompass all manufacturers' service information.

6. COMMENTS INVITED. Please direct proposed changes to this AC to:

Federal Aviation Administration
Flight Standards Service
Aircraft Maintenance Division, AFS-300
800 Independence Ave. SW
Washington, DC 20591

ORIGINAL SIGNED by

/s/ John S. Duncan
Director, Flight Standards Service

Advisory Circular Feedback Form

If you find an error in this AC, have recommendations for improving it, or have suggestions for new items/subjects to be added, you may let us know by contacting the Aircraft Maintenance Division (AFS-300) at 9-AWA-AFS-300-Division-Directives@faa.gov or the Flight Standards Directives Management Officer.

Subject: AC 20-77B, Use of Manufacturers' Maintenance Manuals

Date: _____

Please check all appropriate line items:

An error (procedural or typographical) has been noted in paragraph _____ on page _____.

Recommend paragraph _____ on page _____ be changed as follows:

In a future change to this AC, please cover the following subject:
(Briefly describe what you want added.)

Other comments:

I would like to discuss the above. Please contact me.

Submitted by: _____

Date: _____