



Advisory Circular

Subject: Use of Manufacturers'
Maintenance Manuals

Date: 4/6/07
Initiated by: AFS-350

AC No: 20-77A

- 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 20-77, Use of Manufacturers' Maintenance Manuals, dated March 22, 1972, is canceled.
 - 3. RELATED CFR REFERENCES.** Title 14 of the Code of Federal Regulations (14 CFR) part 43, §§ 43.13, 43.15 and 43.16; part 91, § 91.403; part 23, § 23.1529; and part 25, § 25.1529.
 - 4. 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's more important that the owner and operator consider the manufacturer's information and recommendations concerning servicing, repair, and maintaining aircraft, engines and propellers. The CFR sections referenced in paragraph 3 concern requirements for aircraft maintenance and inspection. Owners and operators should find the information contained in manufacturers' maintenance manuals an invaluable source of data on meeting these requirements.
 - 5. MAINTENANCE MANUAL CONTENTS.** Maintenance manuals issued under part 23, § 23.1529; 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, detailed, and Continuous Airworthiness Maintenance Program (CAMP) that owner or operator may choose to adopt. In general, the manuals are likely to be structured as follows:
 - a. A step-by-step, recipe format that provides continuity for recommended work schedules,
 - b. Information logically sequenced to make it easy to find and use,
 - c. Easy to follow expanded view drawings, charts or photographs supported by text, and
 - d. Subject matter likely to be displayed in a, b, and c format are:
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- (1) Description of electrical, hydraulic, and fuel controls systems, etc.
- (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.

6. MANUAL CHANGES. The 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 ASIs encounter if:

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

- All or a portion of a SB is incorporated as part of an Airworthiness Directive
- The SB is part of the FAA-approved Airworthiness Limitations section of the manufacturer's manual or the type certificate

- SBs are incorporated directly or by reference into some type of FAA-approved inspection program, such as an Approved Aircraft Inspection Program or CAMP
- SBs are listed as an additional maintenance requirement in the certificate holder's OpSpecs

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