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ADVISORY CIRCULAR

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

SUBJECT: IDENTIFICATION AND REGISTRATION MARKING

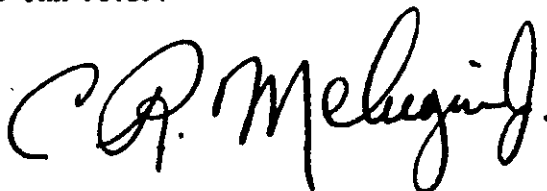
1. PURPOSE. This advisory circular is to provide guidance and information concerning the identification and marking requirements of Federal Aviation Regulations (FAR) Parts 21 and 45, and, where considered helpful, to provide an acceptable means, but not the sole means, of compliance with the regulations.
 2. REFERENCES.
 - a. FAR Parts 21, 45, and 47.
 - b. Advisory Circulars Nos. 20-62A and 20-65.
 3. GENERAL. Under the provisions of the FA Act of 1958, and implementing FAR, a civil aircraft must be registered and identified before it may be operated in the United States. The regulations applicable to registration of an aircraft are in FAR Part 47, which also contains provisions concerning assignment and description of identification marks (nationality and registration marks). FAR Part 21, Section 21.182, establishes the requirement for aircraft identification, while FAR Part 45 sets forth the requirements for display of nationality and registration marks; for display of special airworthiness classification marks; for identification plates for aircraft, aircraft engines, and propellers; and for identification of certain replacement and critical aircraft parts and components. This advisory circular is primarily concerned with FAR Part 45. Paragraphs 4 and 5 of this advisory circular apply only to those rules where information and guidance is considered to be helpful. Discussion of rules considered self-explanatory is omitted.
 4. IDENTIFICATION OF AIRCRAFT AND RELATED PRODUCTS. The following paragraphs provide an acceptable means of compliance with certain sections of FAR Part 45, Subpart B, where guidance is considered to be helpful.
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- a. Section 45.11(a), Aircraft and Aircraft Engines. An "accessible location near an entrance" for an aircraft identification plate may be either external or internal, and would be considered acceptable when it is legible to a person at, or within, the entrance to the aircraft. For an aircraft with more than one door, the entrance most used by the flight and servicing crews would be considered the most appropriate location for the identification plate. If the plate under certain conditions is covered or enclosed in any manner, its accessibility would be considered acceptable if it can be revealed without the use of tools. The aircraft identification plate may be located externally on the fuselage, near the tail surfaces, if it is legible to a person on the ground.
- b. Section 45.11(b), Propellers and Propeller Blades and Hubs. For ease in identification, the markings required by this section should, if possible, be placed in an area where they would be legible without disassembly of the propeller.
- c. Section 45.13(a)(1), Aircraft Builder. The "builder's name" on the identification plate may be an individual, firm, co-partnership, corporation, company, association, or joint-stock association, and would include an amateur-builder or aircraft manufacturer. For an aircraft built from spare and surplus parts, the builder's name would be that of the person who assembled the aircraft and not the name of the manufacturer who builds the same model of aircraft under a production approval.
- d. Section 45.13(a)(3), Serial Numbers. For an aircraft built from spare and surplus parts, any serial number assigned by the builder would be acceptable if it could not be confused with those assigned by the manufacturer who builds the same type of aircraft under a production approval. It is suggested that a letter prefix or suffix, such as the builder's name or initials, be used with the number to provide a positive identification.
- e. Section 45.13(a)(5), Production Certificate Number. It is not considered acceptable for the production certificate number to be shown on the identification plate for aircraft that are built prior to inclusion of that model aircraft on the production limitation record (reference FAR Part 21, Section 21.151).
- f. Section 45.15(a), Replacement and Modification Parts. An acceptable means of compliance with the requirement of Section 45.15(a) that certain parts be identified as approved parts is to mark each such part with the symbol "FAA-PMA" (Federal Aviation Administration - Parts Manufacturer Approval. Reference Advisory Circular 21.303-1).

5. DISPLAY OF NATIONALITY AND REGISTRATION MARKS. The requirements for display of nationality and registration marks, called "identification numbers" in FAR Part 47, and popularly referred to as "N-numbers," are in FAR Part 45, Subpart C. The following guidance provides an acceptable means of compliance with Subpart C.
- a. Section 45.21(b), Modifying or Confusing Marks.
 - (1) Any emblem or decoration placed between the "N" and the registration number, or between any of the letters or numbers in the registration number is not acceptable
 - (2) Company names, trademarks, decorations, and the like placed on areas of the aircraft other than those prescribed for nationality and registration marks should be evaluated as to suitability by the local FAA inspector.
 - b. Section 45.21(c)(1), Permanence. An acceptable means of compliance to secure the degree of permanence required by this section is to use paint of a kind that would require thinners or strippers to remove, or to affix the marks in the form of decalcomanias. The use of tape which can be peeled off or water-soluble paint, such as poster paint, is not considered acceptable. Such readily removable materials may be used only if Section 45.21(d) is applicable.
 - c. Section 45.21(c)(2), Ornamentation. This section prohibits the use of ornamentation. Shading, when it facilitates the reading of marks, is not considered to be ornamentation. Similarly, a border around each character is not considered to be ornamentation, but it is considered to be part of the character for the purposes of Section 45.29(d) and (e).
 - d. Sections 45.21(c)(3) and 45.21(c)(4), Legibility. Ornamentation and color contrast can both have an effect on the legibility of the nationality and registration marks. For example, marks may contrast in color with the background but still may not be legible if the background is highly decorated in some manner, such as checkering. Any questions in this area should be resolved on an individual basis through consultation with the local FAA inspector.
 - e. Section 45.22(b), Restored or Replica Aircraft. A replica would be considered eligible for the privileges extended in Section 45.22(b) even though it may not be identical to the original in every detail. Minor differences in configuration due to modern equipment and components, such as use of a tail-wheel instead of tail-skid, main wheel brakes, or a modern type propeller, would be considered acceptable.

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- f. Section 45.23(a), Display of Nationality and Registration Marks.
Section 45.23(a) requires that the registration number follow the letter "N." This means that the "N" and the registration number must be displayed in one line.
- g. Section 45.23(b), Display of Airworthiness Classification Marks.
The classification identifications required by this section should be legible to a person entering the aircraft. For an aircraft operated in the multiple classification under FAR Part 21, Section 21.187, a removable classification placard of appropriate size is considered acceptable.
- h. Section 45.31, Marking of Export Aircraft.
- (1) Production flight testing of new aircraft having foreign markings painted on the aircraft may be accomplished by the manufacturer, using a special flight permit under FAR 21.197 and his Dealer's Aircraft Registration Certificate.
 - (2) It should be noted that under Section 45.21(b) both United States and foreign nationality and registration marks may not be displayed (unless authorized by the Administrator) because it would cause confusion of the correct nationality and registration marks.
 - (3) Operation of an aircraft with foreign markings that has been removed from the U.S. civil registry and registered in a foreign country, but has not yet received a foreign airworthiness certificate, must be accomplished on a special flight authorization under FAR 91.28.



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