Advisory Circular

Subject: Installation, Removal, or Change of Identification Data and Identification Plates on Aircraft Engines

Date: 08/03/2010
Initiated by: AIR–200

AC No: 45–3A

1. Purpose. This advisory circular (AC) provides information about Title 14, Code of Federal Regulations (14 CFR) part 45, Identification and Registration Marking. This AC is not mandatory and does not constitute a regulation. This AC describes an acceptable means, but not the only means, to comply with the requirements for the installation, removal, or change of identification data and identification plates on aircraft engines. However, if you use the means described in the AC, you must follow it in all important respects.

2. Audience. This AC affects anyone who seeks to install, remove, or change identification data and identification plates on aircraft engines.

3. Effective Date. This AC is effective April 16, 2011.

4. Explanation of Changes. This revision—

a. Updates all 14 CFR references.

b. Updates formatting to match the current AC formatting policy.

5. Cancellation. This AC cancels, as of its effective date, AC 45–3, Installation, Removal, or Change of Identification Data and Identification Plates on Aircraft Engines, dated November 6, 1985.

6. Related Publications.

a. 14 CFR part 43, Maintenance, preventive maintenance, rebuilding, and alteration (specifically, §§ 43.3, 43.9, and 43.11).

b. 14 CFR part 45, Identification and registration marking (specifically, §§ 45.11 and 45.13).

7. Background.

a. Under § 45.11, General, the Federal Aviation Administration (FAA) requires that each aircraft engine manufactured under a type or production certificate be identified by a fireproof engine identification (ID) plate. The engine ID plate must be affixed to the engine at an

accessible location where it is unlikely to be defaced or removed during normal service, lost or destroyed in an accident.

b. Under § 45.13, Identification data, the FAA requires specific identification information to be contained on the engine ID plate, including the name of the builder, the model designation, the builder's serial number, the type or production certificate number (if any), and the established rating. In addition, the data contained on the engine ID plate must identify the specific FAA-approved engine configuration and the fact that it was manufactured and approved under the provisions of an FAA production approval.

8. Engine ID Plate Requirements.

a. Section 45.13(a) details the information that aircraft engine manufacturers are required by the rule to include on engine ID plates, including the builder's name and serial number, model designation, type certificate and production certificate numbers, and engine rating.

b. Section 45.13(b) prohibits the unauthorized removal, change, or placement of identification information required by § 45.13(a) on any aircraft engine.

c. Section 45.13(c) and (d)(2) provide an exception for persons performing maintenance under the provisions of part 43. These persons may remove the engine ID plate, when necessary during maintenance operations as follows:

(1) Removal of an engine ID plate is considered necessary during certain maintenance operations such as caustic cleaning, paint removal, or sandblasting. Removal of an engine ID plate also is considered necessary when the module to which the engine ID plate is fastened has to be repaired or replaced for maintenance purposes.

(2) An engine ID plate removed during maintenance operations must be reinstalled on the same engine in the original location from which it was removed before releasing the engine to service.

(3) An engine ID plate cannot be replaced by persons performing maintenance under the provisions of part 43 without the approval of the FAA.

d. Section 45.13(d)(1):

(1) Section 45.13(d)(1) authorizes removal, change, or replacement of the ID information required by § 45.13(a) on any engine only when necessary. These functions must be accomplished by persons performing work under the provisions of part 43.

(2) The change of ID information is considered necessary when accomplished in compliance with specific maintenance procedures contained in manufacturers' manuals, letters, or bulletins, including those incorporated in an airworthiness directive.

e. The engine ID plate, when permanently affixed, serves at all times as the control for establishing and maintaining the engine approval status. Accordingly, the identification plate

installed by the engine manufacturer must remain with the particular engine throughout its useful life unless otherwise authorized by the FAA.

9. Engines of Modular Design and Engine ID Plates.

a. Engine modules. A typical turbine engine consists of separate sections, or modules, designed for particular functions. These include a fan section, compressor section, combustion section, turbine section, and exhaust section. These modules are not independently approved by the FAA, but are approved as a part of the complete engine type design.

b. Engine ID plates. Aircraft engine manufacturers, in compliance with §§ 45.11 and 45.13, must identify each complete engine by affixing an engine ID plate to one of the modules. The engine ID plate identifies the assembly of modules that make up the complete engine approved under a type certificate.

c. Replacement of engine modules. When an aircraft operator or repair station replaces the module containing the engine ID plate (for example, during repair or overhaul), the engine ID plate should be removed and reinstalled on the replacement module to maintain the identification of the engine. This is similar to requiring the replacement of an aircraft ID plate when the member containing the aircraft ID plate is damaged; the aircraft ID plate would be removed from the damaged member and reinstalled on the replacement member because that aircraft ID plate serves to identify the aircraft, not the member to which it is affixed. Upon completion of the module and engine ID plate change, an entry must be made in the maintenance record as required by §§ 43.9 and 43.11.

d. Engine history. Maintenance on modular engines is normally accomplished by replacing entire modules. However, aircraft operators and repair stations should maintain a continuous history on the basic engine even though every module may have been replaced any number of times; this is predicated on the engine ID plate, serial number, and historical/modification records.

e. Engine modification records. Aircraft operators and repair stations should maintain records on the non-modular components of modular type engines such as fuel lines and accessories. These components are controlled by the engine serial number on the engine ID plate and corresponding historical/modification records.

10. Control of Engine Components.

a. The FAA is concerned that some aircraft operators and repair stations may not remove the engine ID plate from the module containing it when the particular module is damaged and must be replaced or when the module must be removed for maintenance and will not be reinstalled on the engine from which it was removed.

b. Similarly, the FAA is concerned that some aircraft operators and repair stations may install replacement modules containing an engine ID plate belonging to another engine assembly. Such an exchange of engine ID plates results in a loss of identity (historical/modification data) for both engines and does not comply with § 45.13(c) and/or (e). In addition, an exchange of

engine ID plates (including serial numbers) from engine to engine, or failure to remove and reinstall an engine ID plate when the module containing it must be removed for maintenance, inhibits positive control of both modular and non-modular components.

c. Control of modular and non-modular components is needed because the information on the engine ID plate provides a positive correlation between the engine and the required historical/modification records. The engine ID plate also serves as a baseline to control all activity accomplished on a particular engine. Such activity includes configuration, airworthiness directive compliance, overhaul, life-limited parts, noise/emission data, module changes, and compliance throughout the entire service life of the engine.

11. Where to find this AC. You can find this AC at http://www.faa.gov/regulations_policies/advisory_circulars/.

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