

October 16, 1985

Preston G. Caddis II, Esq.
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Dear Mr. Caddis:

Request for Written Opinion

Your letter of September 20, 1985, requests our written opinion on the matter of identification of aircraft engines in documents filed with the FAA Aircraft Registry. Specifically, your question addresses the matter of which manufacturer's serial number, located on the engine, should be referred to in documents filed with the Registry.

Background: You have stated in your letter that certain turboprop engines contain two serial number data plates. You have indicated that one such data plate is attached to the gas generator portion of the engine (also known as the "hot section") and the other is attached to the power or gear box section of the engine (also known as the "cold section").

The problem, as you have described it, arises from the practice of some parties of referring to the serial number shown on the gas generator section in documents filed with the Registry. Other parties refer to the serial number shown on the power section of the engine. There appears to be no difficulty with the discrepancy in the practice when the engine referred to is a newly manufactured engine, which apparently has the same serial number on both sections. As you point out, however, at times the power section of one engine is mated with the gas generator section of another as part of an overhaul, resulting in different serial numbers on the data plates on engines modified in this manner. This appears to create confusion with respect to the proper identification of the engine in conveyances to be recorded with the Registry, i.e., whether the data plate on the power section or on the new gas generator section should be referred to for identification purposes.

You have asked our written opinion as to which of the serial numbers on such modified engines is the "manufacturer's serial number" within the meaning of 14 CFR 49.43(a).

Discussion: As you are aware, 14 CFR 49.43(a) describes one of the requirements for eligibility of a conveyance for recordation, as follows:

"...It affects and describes an aircraft engine...to which this subpart applies, specifically identified by make, model, horsepower, and manufacturer's serial number;" (emphasis added)

Compliance with this section is apparently complicated by the existence of two data plates, one each on the power section and the gas generator section of the engine. We are not persuaded, however, that the language of Section 49.43(a) requires reference to one of the two or more engine data plates to determine the serial number identification of an engine. Rather it is our conclusion that the language on engine serial number in Section 49.43(a) refers to the requirement in 14 CFR 45.11 of an identification plate for each aircraft and aircraft engine. The information required on the data plate is specified in Section 45.13(a) and includes, inter alia, the manufacturer's serial number. 14 CFR 45.13(a)(3).

It is our opinion that the engine data plate required under Section 45.11 is the only source of identifying information for an engine, since it alone contains the manufacturer's serial number for the engine as a unit. The serial number remains the sole identification of the engine for the duration of its useful existence. The identification is not altered by the replacement of a module, such as the gas generator section or the power section. An engine which has undergone such a change, therefore, is identified by the same serial number assigned by the manufacturer at the time of its initial completion, as indicated on the engine data plate.

The practice of referring to the engine data plate for the engine serial number is followed by FAA aircraft engineering personnel, as well as by engine manufacturers. We have telephonically confirmed this with the FAA Office of Airworthiness in Washington, D.C. and with representatives from Pratt and Whitney-Canada, Ltd., and Garret AiResearch, Inc.

We suggest that the serial numbers on the power and gas generator sections referred to in your letter may be the serial numbers for critical components authorized under 14 CFR 45.14. This section permits marking of a component with a serial number if the Airworthiness Limitations section of a Manufacturer's Maintenance Manual specifies a replacement time or inspection interval for that part. As you may be aware, the power and gas generator sections of a turboprop engine are life-limited and require replacement after a specified length of use. The modules, then, may have a manufacturer's serial number distinct from that assigned to the engine as a unit. However, the module serial number should not be mistaken for the engine serial number for purposes of identifying the engine, and should not be used to identify the engine in conveyances to be recorded with the Registry.

We recommend that you ascertain the engine identification number by consulting with the manufacturer as to the location of the engine data plate on the engine. Once the engine data plate is located, the identification number specified therein should be used in all conveyances filed with the Registry.

Sincerely,

Original signed by:
Joseph R. Standaert
Joseph R. Standaert
Aeronautical Center Counsel

cc:

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