Cancelled 00-2U

Federal Aviation Agency

ADVISORY CIRCULAR

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AIRCRAFT
EFFECTIVE: 3/24/66

SUBJECT: QUALIFICATION OF TYPE CERTIFICATED ENGINES AND PROPELLERS FOR AIRCRAFT INSTALLATIONS

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1. PURPOSE. This circular calls attention to the relationship between both Federal Aviation Regulations Parts 33 (Aircraft Engine Airworthiness) and 35 (Propeller Airworthiness) and various aircraft airworthiness parts.

2. CANCELLATION. Advisory Circular 20-15.

3. BACKGROUND. Difficulties have been encountered during the certification of aircraft because certain design features of the type certificated engine or propeller did not comply with the applicable requirements of the aircraft airworthiness part. Examples of such requirements are: FAR 23.991 requires that, in certain circumstances, one fuel pump be engine driven; FAR 25.1017 requires, among other things, a particular breather design to prevent the accumulation of ice; and FAR 25.1121 requires that, unless suitable precautions are taken, hot exhaust parts may not be located in dangerous proximity to parts of any system carrying flammable fluids or vapors. In most cases, the problem of compliance with the aircraft installation requirements has been resolved by cooperation between the engine or propeller manufacturer and the aircraft manufacturer. Early recognition of possible problems of this nature would minimize the need for last minute modifications.

4. INFORMATION.

   a. Under FAR 21.21, an applicant is entitled to a type certificate for an aircraft in the normal, utility, acrobatic, or transport category if, among other things, he shows that the aircraft meets the applicable aircraft airworthiness requirements (FARs 23, 25, 27, or 29).

   b. Under FAR Sections 23.901(a), 25.901(a), 27.901(a), and 29.901(a), the powerplant installation of an aircraft includes each component (engine, propeller, and associated parts, appurtenances, and accessories) that satisfies certain stated conditions. Each such component is subject to the powerplant installation requirements

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set forth in Subpart E of the applicable aircraft airworthiness Part, even when the component (as for example, fuel pumps, lines, and valves) is supplied by the engine (or propeller) manufacturer as an integral part of a type certificated engine (or propeller).

c. Engine and propeller manufacturers should familiarize themselves with the powerplant installation requirements in the aforementioned aircraft airworthiness parts. If these requirements are taken into consideration during the development and type certification of the engine or propeller, aircraft-installation compatibility problems during aircraft type certification might be avoided.

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