Subpart F—Production Under Type Certificate

§ 21.121 Applicability.

This subpart prescribes rules for production under a type certificate.

§ 21.122 Location of or change to manufacturing facilities.

(a) A type certificate holder may utilize manufacturing facilities located outside of the United States if the FAA finds no undue burden in administering the applicable requirements of Title 49 U.S.C. and this subchapter.

(b) The type certificate holder must obtain FAA approval before making any changes to the location of any of its manufacturing facilities.

(c) The type certificate holder must immediately notify the FAA, in writing, of any change to the manufacturing facilities that may affect the inspection, conformity, or airworthiness of its product or article.

§ 21.123 Production under type certificate.

Each manufacturer of a product being manufactured under a type certificate must—

(a) Maintain at the place of manufacture all information and data specified in §§ 21.31 and 21.41;

(b) Make each product and article thereof available for inspection by the FAA;

(c) Maintain records of the completion of all inspections and tests required by §§ 21.127, 21.128, and 21.129 for at least 5 years for the products and articles thereof manufactured under the approval and at least 10 years for critical components identified under § 45.15(c) of this chapter;

(d) Allow the FAA to make any inspection or test, including any inspection or test at a supplier facility, necessary to determine compliance with this subchapter;

(e) Mark the product in accordance with part 45 of this chapter, including any critical parts;

(f) Identify any portion of that product (e.g., sub-assemblies, component parts, or replacement articles) that leave the manufacturer’s facility as FAA approved with the manufacturer’s part number and name, trademark, symbol, or other FAA-approved manufacturer’s identification; and

(g) Except as otherwise authorized by the FAA, obtain a production certificate for that product in accordance with subpart G of this part within 6 months after the date of issuance of the type certificate.


(a) Each person manufacturing aircraft under a type certificate must establish an approved production flight test procedure and flight check-off form, and in accordance with that form, flight test each aircraft produced.

(b) Each production flight test procedure must include the following:

(1) An operational check of the trim, controllability, or other flight characteristics to establish that the production aircraft has the same range and degree of control as the prototype aircraft.

(2) An operational check of each part or system operated by the crew while in flight to establish that, during flight, instrument readings are within normal range.

(3) A determination that all instruments are properly marked, and that all placards and required flight manuals are installed after flight test.

(4) A check of the operational characteristics of the aircraft on the ground.

(5) A check on any other items peculiar to the aircraft being tested that can best be done during the ground or flight operation of the aircraft.


(a) Each person manufacturing aircraft engines under a type certificate must subject each engine (except rocket engines for which the manufacturer
must establish a sampling technique) to an acceptable test run that includes the following:

1. Break-in runs that include a determination of fuel and oil consumption and a determination of power characteristics at rated maximum continuous power or thrust and, if applicable, at rated takeoff power or thrust.

2. At least five hours of operation at rated maximum continuous power or thrust. For engines having a rated takeoff power or thrust higher than rated maximum continuous power or thrust, the five-hour run must include 30 minutes at rated takeoff power or thrust.

(b) The test runs required by paragraph (a) of this section may be made with the engine appropriately mounted and using current types of power and thrust measuring equipment.

Each person manufacturing propellers under a type certificate must give each variable pitch propeller an acceptable functional test to determine if it operates properly throughout the normal range of operation.

§ 21.130 Statement of conformity.
Each holder or licensee of a type certificate who manufactures a product under this subpart must provide, in a form and manner acceptable to the FAA, a statement that the product for which the type certificate has been issued conforms to its type certificate and is in a condition for safe operation.

§ 21.131 Applicability.
This subpart prescribes—

(a) Procedural requirements for issuing production certificates; and

(b) Rules governing holders of those certificates.

§ 21.132 Eligibility.
Any person may apply for a production certificate if that person holds, for the product concerned—

(a) A current type certificate,

(b) A supplemental type certificate, or

(c) Rights to the benefits of that type certificate or supplemental type certificate under a licensing agreement.

§ 21.133 Application.
Each applicant must apply for a production certificate in a form and manner prescribed by the FAA.

§ 21.135 Organization.
Each applicant for or holder of a production certificate must provide the FAA with a document describing how its organization will ensure compliance with the provisions of this subpart. At a minimum, the document must describe assigned responsibilities and delegated authority, and the functional relationship of those responsible for quality to management and other organizational components.

§ 21.137 Quality system.
Each applicant for or holder of a production certificate must establish and describe in writing a quality system that ensures that each product and article conforms to its approved design and is in a condition for safe operation. This quality system must include:

(a) Design data control. Procedures for controlling design data and subsequent changes to ensure that only current, correct, and approved data is used.

(b) Document control. Procedures for controlling quality system documents and data and subsequent changes to ensure that only current, correct, and approved documents and data are used.

(c) Supplier control. Procedures that—

(1) Ensure that each supplier-furnished product or article conforms to its approved design; and

(2) Require each supplier to report to the production approval holder if a product or article has been released from that supplier and subsequently found not to conform to the applicable design data.