

Designation: F2448 - 04(Reapproved 2009)

Standard Practice for Manufacturer Quality Assurance System for Weight-Shift-Control Aircraft¹

This standard is issued under the fixed designation F2448; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

- 1.1 This practice covers minimum requirements for a quality assurance program for weight-shift-control aircraft.
- 1.2 This practice applies to weight-shift-control aircraft seeking civil aviation authority approval, in the form of flight certificates, flight permits, or other like documentation.
- 1.3 This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2. Significance and Use

- 2.1 The purpose of this practice is to provide the minimum requirements necessary for the establishment of a written quality assurance program for a light sport aircraft manufacturer, or component supplier.
- 2.2 If final assembly is completed outside of the main production facility, the manufacturer shall specify the required procedures and what persons are authorized to perform them.

3. Materials and Manufacture

- 3.1 *Drawing Control Procedure*—A written procedure shall be in effect so that appropriate manufacturing drawings, their manufacturing revisions, and related documents are utilized for each project.
 - 3.2 Component Control Procedure:
- 3.2.1 A written procedure shall be in effect so that materials, processes, and components, including raw materials, are in accordance with the manufacturing specifications.
- $^{\rm I}$ This practice is under the jurisdiction of ASTM Committee F37 on Light Sport Aircraft and is the direct responsibility of Subcommittee F37.40 on Weight Shift.
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- 3.2.2 This procedure shall provide the purchasing agent with all of the information required to order appropriate material.
- 3.2.3 A written receiving procedure shall be in effect so that incoming material and components are checked against the purchasing specifications.
- 3.2.4 A written procedure shall be in effect so that material in stock can be properly identified for future use.
- 3.2.5 Documentation on any material, process, or components certified shall be filed for reference.

4. Inspection

- 4.1 A written procedure shall be in effect so that appropriate inspections are made on manufactured parts and subassemblies for conformance with engineering specifications.
- 4.2 A written procedure shall be in effect so that appropriate inspections are made on purchased components.
- 4.3 A written procedure shall be in effect so that completed units are inspected prior to delivery.
- 4.4 Nonconforming components shall be identified and evaluated for disposition as follows:
- 4.4.1 A component not suitable for use shall be altered or disposed of to avoid accidental use.
- 4.4.2 Reworked components shall be re-inspected in accordance with 4.1, 4.2, or 4.3 of this practice prior to use.
- 4.4.3 In some cases, a component may be determined to be acceptable as is or as modified after further evaluation. In such cases, appropriate review, acceptance, and documentation shall be a requirement.
- 4.5 *Audits*—A written procedure shall be in effect to perform audits of the quality assurance program at least once every two years.

5. Keywords

5.1 light sport aircraft; special airworthiness certificate; weight-shift-control aircraft