



Designation: F3199 – 16

Standard Guide for Wing Interface Documentation for Weight Shift Control Aircraft¹

This standard is issued under the fixed designation F3199; 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 guide covers the manufacture of Weight Shift aircraft and their qualification for certification.

1.2 This guide 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. Referenced Documents

2.1 *ASTM Standards:*²

F2241 Specification for Continued Airworthiness System for Powered Parachute Aircraft

F2972 Specification for Light Sport Aircraft Manufacturer's Quality Assurance System

F2425 Specification for Continued Airworthiness System for Weight-Shift-Control Aircraft

F2457 Specification for Required Product Information to be Provided with Weight-Shift-Control Aircraft

F2317/F2317M Specification for Design of Weight-Shift-Control Aircraft

3. Terminology

3.1 *Definitions:*

3.1.1 *weight-shift-control aircraft, n*—a powered aircraft with a framed pivoting wing and a fuselage controllable only in pitch and roll by the pilot's ability to change the aircraft's center of gravity with respect to the wing. Flight control of the aircraft depends on the wing's ability to flexibly deform rather than the use of control surfaces.

¹ This guide is under the jurisdiction of ASTM Committee F37 on Light Sport Aircraft and is the direct responsibility of Subcommittee F37.40 on Weight Shift. Current edition approved June 1, 2016. Published July 2016. DOI: 10.1520/F3199-16.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

4. Interface Documentation

4.1 Interface documentation is the data necessary for the aircraft manufacturer to complete overall certification to ASTM Weight Shift Control standards. The following data represents a guide to recommended type, detail, and general format for data transfer from a major subcontractor to the aircraft manufacturer.

4.2 *Manufacturer's Reference Documents*—The following are reference documents that should be supplied to the manufacturer by the subcontractor. These are intended to be maintained at a current status and referenced by documents provided with each delivered product.

4.2.1 *Quality Assurance Manual*—In order to meet the requirements of Specification F2972, it will be necessary for the manufacturer to have a current copy of the subcontractor's quality assurance manual on file. This manual needs to show that written procedures are in effect for:

4.2.1.1 Drawing control,

4.2.1.2 Component control,

4.2.1.3 Receiving inspection,

4.2.1.4 Material identification,

4.2.1.5 Inspection, <https://standards.iteh.com/document/ASTM-F3199-16>

4.2.1.6 Non-conforming material handling, and

4.2.1.7 QA audits.

4.2.2 *Continued Airworthiness*—In order to meet the requirements of Specification F2241, it will be necessary for the manufacturer to have a current copy of the subcontractor's continued airworthiness manual on file.

4.2.3 *Production Acceptance Testing*—In order to meet the requirements of Specification F2425, it will be necessary for the manufacturer to have a current copy of the subcontractor's production acceptance testing written procedure on file.

4.2.4 *Maintenance Manual Coordination*—In order to meet the requirements of Specification F2457, it will be necessary for the manufacturer to have a current copy of the subcontractor's maintenance manual on file.

4.2.5 *Statement of Conformance Coordination*—In order to meet the requirements of Specification F2317/F2317M, it will be necessary for the manufacturer to have on file a current copy of the subcontractor's statement of conformance coordination document describing what is covered by the statement of conformance, as provided by the subcontractor.