



Staff Instruction

Subject: Conversion of Commercially-produced Aircraft and Use of Commercially-produced Parts in Amateur-built Aircraft Projects

Issuing Office: Civil Aviation

Activity Area: Oversight

File No.: Z 5015-11-2

RDIMS No.: 3790578

SI No.: 549-001

Issue No.: 01

Effective Date: 2008-10-23

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1.0 INTRODUCTION

1.1 Purpose

The purpose of this SI is to clarify the policy with respect to the conversion of commercially-produced aircraft into amateur-built aircraft, and the use of parts from commercially-produced aircraft during the construction of amateur-built aircraft.

1.2 Applicability

This document is applicable to all Transport Canada Civil Aviation (TCCA) employees, to individuals and organizations when they are exercising privileges granted to them under an External Ministerial Delegation of Authority, to persons who apply for a special certificate of airworthiness in the amateur-built classification. This Staff Instruction is also available to the aviation industry for information purposes.

1.3 Description of Changes

Not applicable.

2.0 REFERENCES AND REQUIREMENTS

2.1 Reference Documents

It is intended that the following reference materials be used in conjunction with this document:

- (a) Part V Subpart 7 of the *Canadian Aviation Regulations (CARs)—Flight Authority and Certificate of Noise Compliance*;
- (b) Standard 507 of the CARs—*Flight Authority and Certificate of Noise Compliance*;
- (c) Section 549.01 of the CARs and Chapter 549 of the *Airworthiness Manual (AWM)—Airworthiness Standards - Amateur-Built Aircraft*;
- (d) Exemption from Section 549.01 of the CARs and Chapter 549 of the *AWM – Airworthiness Standards - Amateur-Built Aircraft*.

2.2 Cancelled Documents

Not applicable.

2.3 Definitions and Abbreviations

The following definitions and abbreviations are used in this document:

- (a) **Amateur-built aircraft** means a non-type certified aircraft, the major portion of which is constructed or assembled individually as a unique, non-commercial project, either from raw materials or from a kit;
- (b) **Assemble** means to fasten parts or assemblies together using reversible means of attachment such as screws, bolts, nuts or other mechanical fasteners.
- (c) **Builder** means the individual or group of individuals who constructs or assembles an amateur-built aircraft, or who oversees the construction or assembly by other persons, of an amateur-built aircraft;
- (d) **Fabricate** means to make from raw materials or construct from other parts, using permanent methods of attachment such as welding, soldering, riveting, gluing, bonding, crimping or swaging. Fabrication includes operations such as cutting, drilling, bending, forming, "covering" and painting.
- (e) **Major portion** means more than 50% of the total number of items that make up the project, calculated in accordance with a checklist acceptable to Transport Canada.

3.0 BACKGROUND

- (1) Cases have occurred of commercially-produced aircraft being used as the basis of an amateur-built aircraft assembly project. In some cases, the finished aircraft may differ only marginally from its type certified origin. More commonly, parts of type certified aircraft are often incorporated into the construction of an amateur-built aircraft.
- (2) The degree of difficulty and relative importance of the various tasks that make up the construction of an amateur-built aircraft vary widely. Assessment of the "major portion" criteria is therefore essentially subjective, and the 50%+ standard is merely an attempt to apply a degree of objectivity and standardization to this activity. It should be kept in mind that the intent of the "major portion" requirement is to prevent abuse of the amateur-built aircraft classification, by falsely representing as amateur-built, aircraft that were constructed under commercial circumstances. The following principles must therefore be interpreted in the spirit of that requirement.

4.0 INTERPRETATION

- (1) Conversion of a commercially-produced aircraft into amateur-built aircraft by disassembly and re-assembly does not constitute amateur-built aircraft construction, and aircraft so constructed shall not be eligible for a special certificate of airworthiness – amateur-built.
- (2) The opening up of commercially-built components for internal inspection, and their subsequent closure, does not count toward the major portion requirement.
- (3) Rebuilding, restoration or other work previously done to airframe components from a commercially-produced aircraft is considered to be maintenance, and does not count towards the major portion requirement. A builder may not be given credit for the maintenance work done in the past.
- (4) While parts of type certified aircraft may be incorporated into the construction of an amateur-built aircraft, such parts may not be considered as having been constructed or assembled by the amateur builder for the purpose of calculating the "major portion" requirement, unless a significant amount of fabrication work has been introduced during rework of the parts, as described in (5).
- (5) Rebuilding, restoration or other work done to airframe components from a commercially-produced aircraft during the course of an amateur aircraft construction project may be counted toward the calculation of the major portion requirement, provided that a significant amount of fabrication work has been introduced. For example, the making of a new skin for a damaged flight control, using the original as a template, may be credited to the builder.

5.0 TRANSITION

- (1) To avoid hardship to those amateur-built aircraft builders whose projects were commenced under earlier interpretations of the requirements, the following standards will apply.
- (2) Regardless of the commercially-produced aircraft content, amateur-built aircraft that, at the time of publication of this SI, have already been accepted under the policies in effect at the time of acceptance, shall continue to be considered amateur-built aircraft and be eligible for a special certificate of airworthiness – amateur-built.
- (3) Amateur-built aircraft construction projects that, at the time of publication of this SI, are currently in progress, and in respect of which (a) a letter of intent has been submitted, (b) the applicable fees have been paid to MD-RA Inspection Services, (c) a major portion evaluation of the project has been successfully completed, (d) the results of the major portion evaluation have been confirmed by an MD-RA peer review, and (e) the builder has been so informed, shall continue to

be considered amateur-built aircraft and be eligible for a special certificate of airworthiness – amateur-built.

6.0 CONTACT OFFICE

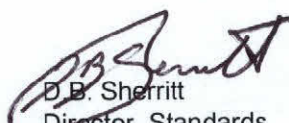
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Suggestions for amendment to this document are invited and should be submitted via the Transport Canada Civil Aviation Issues Reporting System (CAIRS) at the following Internet address:

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