



# Confused

about

## LSA Maintenance Requirements

by  
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Many are confused about the maintenance and inspection requirements for their light-sport aircraft (LSA). Most people do not realize that there can be four aircraft listed for sale that are the exact same make and model, with the same engine and the same components, yet each can require a completely different certification to perform maintenance and inspections. It is the airworthiness certificate and operating limitations that determines this. The Federal Aviation Administration (FAA) issues two

types of airworthiness certificates: white (a standard airworthiness certificate) and pink (a special airworthiness certificate). If yours is pink, you also have a set of operating limitations which are part of the airworthiness certificate and

*Operating limitations provide very specific instructions and will call out who is authorized to perform the condition inspection.*

**STANDARD CATEGORY AIRCRAFT**  
The white certificate is a standard airworthiness certificate. A standard airworthiness certificate is issued to type certified aircraft like the Piper Cub, for example. There is a list of 131 existing type certified air-

craft, including some Aeronca, Piper, and Taylorcraft models. These are standard category aircraft, yet meet the definition of light sport aircraft and may be flown by a Sport Pilot. However, these aircraft are required to be maintained in accordance with FAA part 43 by an Aircraft Maintenance Technician. This refers to an individual who holds a Mechanic certificate issued by the Federal Aviation Administration. The rules for certification and for certificate-holders are detailed in Subpart D of Part 65 of the Federal Aviation Regulations (FAR's). Aircraft Maintenance Technicians (AMT's) inspect and perform or supervise maintenance, preventive maintenance, and alteration of aircraft and aircraft systems. In the U.S., Aircraft Maintenance Technicians

usually refer to themselves as A&P's, for Airframe and Powerplant Mechanics. An A & P may add an Inspection Authorization and perform annual condition inspections on standard category aircraft.

Therefore, if you own a standard category aircraft, your airworthiness certificate is white and with the exception of some preventative maintenance allowed in FAR Part 43 Appendix D, you must have an A & P perform your aircraft maintenance and an A & P IA perform your annual condition inspection. This is still true, even if the standard category aircraft meets the definition of an LSA and therefore can be flown by a sport pilot. The aircraft certification and maintenance rules do not change. It is still a standard category aircraft. Therefore, the maintenance requirements remain unchanged and an

airframe and powerplant (A&P) mechanic with inspection authorization (A&P-IA) must conduct the aircraft's annual inspection.

**AMATEUR-BUILT AIRCRAFT**  
Sometimes referred to as homebuilt aircraft. These aircraft have been issued an experimental airworthiness certificate under 21.191(g). There is no restriction to who performs maintenance, repair, or modification on an experimental amateur built aircraft. FAR 43.1(b), which states: "(b) This part does not apply to any aircraft for which the FAA has issued an experimental certificate, unless the FAA has pre-

viously issued a different kind of airworthiness certificate for that aircraft." Since amateur built aircraft have never held a different type of airworthiness certificate, 43.1(b) applies. That means that the entirety of Part 43 does not apply to these aircraft. This being the case, there is no restriction on who performs maintenance or returns the aircraft to service. Maintenance, repair, and even modifications can be performed by anyone regardless of whether or not they hold an FAA certificate of any kind. The only time a certificate is necessary is when performing the condition inspection each



**INDIVIDUAL** aircraft) and limited privilege and does not require the 2-day repairman inspection course discuss below for experimental light sport aircraft. Even though a "homebuilt" (experimental amateur built) aircraft meets the definition of an LSA and therefore can be flown by a sport pilot, the aircraft certification and maintenance rules do not change. It is still an experimental amateur built aircraft. Therefore, the person who holds the repairman certificate for that homebuilt, or an A&P, must perform the aircraft's annual condition inspection. The 2 day repairman inspection course will not authorize a person to perform the inspection on an amateur built aircraft.

### LIGHT-SPORT AIRCRAFT (LSA)

With respect to aircraft certification, the light-sport category adds a new group of aircraft based on the defini-

tion in FAR Part 1.1, limiting size, weight, and speed, and how the aircraft is equipped. This category contains five classes of aircraft: airplanes, gliders, powered parachutes, weight-shift-control, and lighter-than-air aircraft. SLSA aircraft are factory built, turn key, aircraft built in accordance with ASTM standards and are required to be maintained in accordance with these standards. These aircraft must receive a condition inspection every 12 months.

If it is used for instruction, they also must have a 100 hour inspection.

year. This requirement is found in the operating limitations of the aircraft rather than in the regulations themselves. The operating limitations will require that the person performing the condition inspection hold either the repairman certificate for that individual aircraft, or an A&P certificate. The A&P is not required to hold an inspection authorization (IA) in order to perform the condition inspection on an experimental aircraft. The repairman certificate for amateur built aircraft is issued to the original builder. This repairman certificate is specific (applicable to ONE specific IN-

A light sport repairman with a maintenance rating (LSRM), or an A & P (as listed in the maintenance manual) are authorized to perform maintenance and inspections on SLSA aircraft in accordance with inspection procedures developed by the aircraft manufacturer. This new repairman certificate called "Repairman - Light-Sport aircraft" has two ratings, titled Inspection and Maintenance. To earn the LSRM certificate, you must:

Be at least 18 years old.

Speak, read, & understand English.

Complete the amount of training appropriate for the rating.

Be a U.S. citizen or permanent legal resident and complete the 80-120 hour Repairman Training Course.

A person who fulfills the necessary requirements is issued a Light Sport Repairman Certificate with a Maintenance Rating. Many aircraft owners take this course to perform their own maintenance and inspections. Some people earn their LSRM and service the special light sport community. If you are not operating the aircraft for hire for flight training or rental, you do not need 100 hour inspections. You will only need the condition inspection to be performed each 12 calendar months.

#### EXPERIMENTAL LIGHT-SPORT AIRCRAFT (ELSA)

The light sport rule created two new categories of aircraft with distinctly different maintenance requirements: Special Light Sport (SLSA) the factory built discussed in the previous paragraph and Experimental

Light Sport (ELSA). Experimental light-sport aircraft applies to those aircraft for which the certificate is issued within 21.191(i). This category contains six classes of aircraft: airplanes, gliders, powered parachutes, weight-shift-control, gyroplanes, and lighter-than-air aircraft. Experimental light sport aircraft (ELSA), like amateur built aircraft do not have restrictions to who performs maintenance, repair, or modification. Maintenance, repair, and even modifications can be performed by anyone regardless of whether or not they hold an FAA certificate of any kind. The only time a certificate is necessary is when performing the condition inspection each year. This requirement is found in the operating limitations of the aircraft rather than in the regulations themselves. The op-

UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION STANDARD AIRWORTHINESS CERTIFICATE			
1. NATIONALITY AND REGISTRATION MARKS <b>N2631A</b>	2. MANUFACTURER AND MODEL <b>PIPER PA-22-135</b>	3. AIRCRAFT SERIAL NUMBER <b>22-903</b>	4. CATEGORY <b>NORMAL</b>
5. AUTHORITY AND BASIS FOR ISSUANCE This airworthiness certificate is issued pursuant to the Federal Aviation Act of 1958 and certifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate therefor, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex B to the Convention on International Civil Aviation, except as noted herein. <b>NONE</b>			
6. TERMS AND CONDITIONS Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator, this airworthiness certificate is effective as long as the maintenance, preventive maintenance, and alterations are performed in accordance with Parts 21, 43, and 81 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States. DATE OF ISSUANCE: <b>08-10-95</b> FAA REPRESENTATIVE: <b>Marion W. Williams</b> DESIGNATION NUMBER: <b>SW-FSDO-OKC</b> Any alteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding \$1,000 or imprisonment not exceeding 2 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS. FAA Form 8100-2 (8-80) GPO 882-804			

Standard Category Certificate

UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION SPECIAL AIRWORTHINESS CERTIFICATE			
A. CATEGORY/DESIGNATION PURPOSE		EXPERIMENTAL OPERATING LIGHT-SPORT AIRPLANE	
B. MANUFACTURER	NAME	ADDRESS	N/A
C. FLIGHT	FROM	TO	N/A
D. N. 7526Y	BUILDER: Quicksilver	SERIAL NO. 02442	MODEL Sport
DATE OF ISSUANCE: 01-11-2008		EXPIRY: Unlimited	
OPERATING LIMITATIONS DATED: 01-11-2008		ARE A PART OF THIS CERTIFICATE	
SIGNATURE OF FAA REPRESENTATIVE		DESIGNATION OR OFFICE NO.	
BRIAN J CARPENTER		DART830325WP	
Any alteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding \$1,000 or imprisonment not exceeding 2 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS (CFR). FAA Form 8130-7 (10/01) SEE REVERSE SIDE			

ELSA Certificate

UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION SPECIAL AIRWORTHINESS CERTIFICATE			
A. CATEGORY/DESIGNATION PURPOSE		EXPERIMENTAL LIGHT-SPORT WEIGHT-SHIFT-CONTROL	
B. MANUFACTURER	NAME	ADDRESS	N/A
C. FLIGHT	FROM	TO	N/A
D. N. 132PW	BUILDER: AIRBORNE WINDSPORTS PLY LTD	SERIAL NO. XT-912-0MS	MODEL EDGE 540
DATE OF ISSUANCE: 04-17-2007		EXPIRY: UNLIMITED	
OPERATING LIMITATIONS DATED: 04-17-2007		ARE A PART OF THIS CERTIFICATE	
SIGNATURE OF FAA REPRESENTATIVE		DESIGNATION OR OFFICE NO.	
BRIAN J CARPENTER		DART830325WP	
Any alteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding \$1,000 or imprisonment not exceeding 2 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS (CFR). FAA Form 8130-7 (10/01) SEE REVERSE SIDE			

SLSA Certificate

UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION SPECIAL AIRWORTHINESS CERTIFICATE			
A. CATEGORY/DESIGNATION PURPOSE		EXPERIMENTAL AMATEUR BUILT	
B. MANUFACTURER	NAME	ADDRESS	N/A
C. FLIGHT	FROM	TO	N/A
D. N. 88HT	BUILDER: TYLER HUGH C	SERIAL NO. 70193	MODEL RW-7
DATE OF ISSUANCE: 01-03-2007		EXPIRY: Unlimited	
OPERATING LIMITATIONS DATED: 01-03-2007		ARE A PART OF THIS CERTIFICATE	
SIGNATURE OF FAA REPRESENTATIVE		DESIGNATION OR OFFICE NO.	
BRIAN J CARPENTER		DART830325WP	
Any alteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding \$1,000 or imprisonment not exceeding 2 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS (CFR). FAA Form 8130-7 (10/01) SEE REVERSE SIDE			

Amateur Built Certificate



erating limitations will require that the person performing the condition inspection hold either the light sport repairman certificate with an inspection rating (LSRI), a LSRM or A&P certificate. To earn the LSRM certificate, you must:

Be at least 18 years old.

Speak, read, & understand English.

Complete the amount of training appropriate for the rating.

Be a U.S. citizen or permanent legal resident. And complete the 16 hour Repairman Training Course in one particular class of LSA

The LSRI certificate is good for any ELSA a person owns or purchases in the future. Unlike the amateur built repairman certificate, the LSRI certificate is not specific to any specific aircraft, but does require the 2 day, 16

hour course on the inspection of your particular class of LSA. It is important to note that ELSA can be certificated in one of three ways. (1) the transitioning fleet (available only until January 31, 2008,) (2) the ASTM complaint kits-, and (3) a SLSA moved to ELSA category. It does not matter how the ELSA is brought into the category the LSRI may perform the maintenance and condition inspections. With one exception: the LSRI may not perform the 100 hour inspection which is only required if the aircraft is used for hire. (A limited number of the transitioning fleet may be used for hire until January 2010.)

If you are still confused, remember the answers to your questions are found in the aircraft's operating limitations, which were issued by the FAA as a part of its airworthiness certificate. Check out the operating limitations so as to understand

what is required and prohibited when operating your aircraft or when purchasing a new aircraft.

For more information on the Light Sport Repairman certificate, for inspection or maintenance ratings, contact Rainbow Aviation services 877-7 FLY LSA or visit:

[www.rainbowaviation.com](http://www.rainbowaviation.com)