

	EQUIVALENT LEVEL OF SAFETY Spinning	Doc. No. : ELOS-BLSA.0221-01 Issue : 1 Date : 27-01-2017 Ref. : CRI B-54 Page : 1 of 2
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SUBJECT : **Spinning**
CERTIFICATION SPECIFICATION : CS LSA Subpart B 4.5.9
PRIMARY GROUP / PANEL : 1 (Flight)
SECONDARY GROUPE / PANEL : --
NATURE : ELOS

EQUIVALENT LEVEL OF SAFETY

Spinning

STATEMENT OF ISSUE

CS-LSA Subpart B 4.5.9.1 requires for aircraft placarded “no intentional spins” the airplane must be able to recover from a one-turn spin or a 3-s spin, whichever takes longer, in not more than one additional turn, with the controls used in the manned normally used for recovery.

In addition, CS-LSA Subpart B 4.5.9.3 requires:

- (1) For both the flaps-retracted and flaps-extended conditions, the applicable airspeed limit and limit maneuvering load factor may not be exceeded.
- (2) There may be no excessive control forces during the spin or recovery.
- (3) It must be impossible to obtain uncontrollable spins with any use of the controls.
- (4) For the flaps-extended condition, the flaps may be retracted during recovery.

The intention of those requirements is to prevent the aircraft from entering a non-recoverable spin that would cause loss of control of the airplane with catastrophic consequences.

Since recover from a spin is always linked to a certain loss of height, which might not be available (for example in traffic pattern), the current direction is to go for prevention of departing controlled flight rather than recovery (see re-organized CS-23 or Part 23).

This direction allows new approaches in respect to spinning, considered having the same level of safety.

EQUIVALENT LEVEL OF SAFETY (ELOS)

For aeroplanes not approved for intentional spin benign stalling behaviour combined with proactive avoidance of departure from controlled flight by means of clear stall warnings and / or active prevention is considered to reach the same level of safety like complying to B 4.5.9.1 and B 4.5.9.3.

For that it must be shown that the aircraft has no sudden wing drop or pitch up / pitch down motion and two clear, unmistakable and independent stall warnings (horn plus voice) in combination with a

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tactile system (i.e. vibrations) working on the stick / steering wheel triggered by an AoA sensor to warn the pilot of an imminent stall.

In addition the aeroplane must be equipped with an aircraft emergency ballistic rescue parachute compliant with CS-LSA Subpart K for Airframe Emergency Parachute Systems installed in LSA aircraft.