

## Spins

To start on how to judge the figure, let's first look at the Official Judging Rules from the **FAI/CIVA Sporting Code Section 6 Part 1 – Powered Aircraft**

### B.9.29. Family 9.11 and 9.12 - Spins

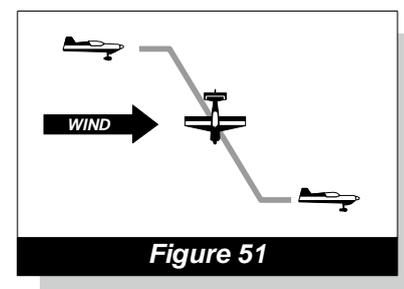
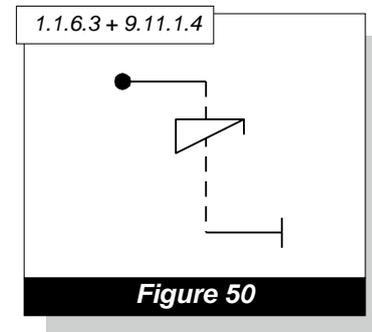
B.9.29.1. All spins start from horizontal flight (Figure 50). In order to spin, the aircraft must be completely stalled in horizontal, level flight from a clearly visible horizontal line before the stall. When the aircraft stalls, the centre of gravity will drop from wings-level horizontal flight.

B.9.29.2. It should be noted that an aircraft has forward momentum as the aircraft decelerates through stall speed. This appearance is more visible when the figure is performed downwind, and is less visible when performed into the wind. This change in appearance is not a grading criterion. (Figure 51)

B.9.29.3. When the aircraft stalls, the nose will fall and at the same time the wing tip will drop in the direction of the spin. Failure to achieve this should be considered a "forced entry" and downgraded one (1) point per five (5) degrees of deviation. During spin entry and in the spin, the flight path is affected by wind. When the spin is entered with a tailwind, the flight path may suggest that the spin entry was "forced". This change in appearance is not a marking criterion.

B.9.29.4. After completion of the prescribed number of turns, the aircraft must stop rotating precisely on the pre-stated heading, then a 90 degree down, wingslevel attitude must be seen. Grading criteria for the basic figure being flown then resumes. If a roll follows a spin, there should be a brief, but perceptible pause (similar to unlinked rolls) between the spin and the roll. Because there is no vertical line before the spin, there is no criterion to centre either a spin element alone or a spin-roll combination on the vertical down line. Be alert for early stopping of the stalled autorotation followed by "aileroning" to the pre-stated heading. In this case, a deduction of one (1) point for every five (5) degrees of "aileroning" must be applied. For example, in a one-turn spin the autorotation is observed to stop after 345 degrees of rotation and the ailerons are used to complete the rotation. The highest score this spin could receive is a 7.0.

B.9.29.5. No account is to be taken of the pitch attitude of the aircraft during autorotation, as some aircraft spin in a nearly vertical pitch attitude while others spin quite flat in conventional spins. Speed of rotation is also not a judging criterion.



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B.9.29.6. If the aircraft never stalls, it is apparent that it cannot spin, and a PZ must be given. You will see "simulated" spins where barrel rolls or flick rolls are offered as spin entries. In both cases, the flight path will not be downward. In all of these cases, the figure will be given a PZ. B.9.29.7. In all spins the grading criteria are:

- A clean breaking stall in horizontal flight.
- Fully-stalled autorotation.
- Stopping on pre-stated heading.
- Vertical down, wings-level attitude after stopping on heading.
- A constant, reasonable quarter-loop radius back the horizontal flight.
- The direction of a spin shall be determined from the roll component.

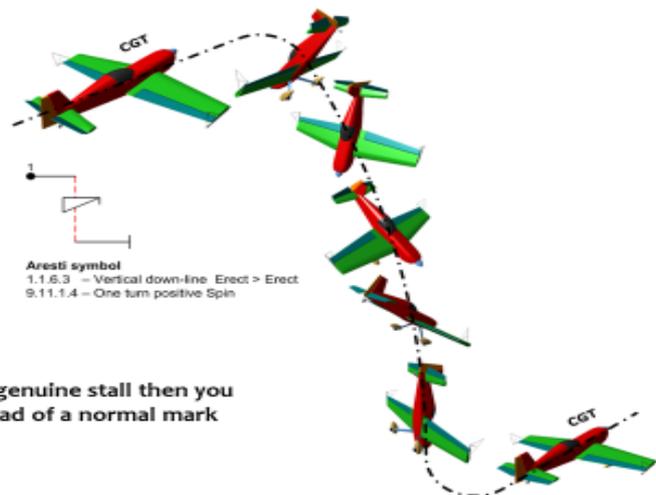
From CIVA Judging Seminar -



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**The 'competition' spin must display these characteristics -**

- A clean initial stall on-heading in level CGT flight, leading to
- Immediate nose drop + wing drop + and yaw into auto-rotation
- The rotation must stop on the correct heading
- We must see rapid translation to a vertical ZLA line
- A smooth radius pull or push, to ... (level flight exit, remainder of figure etc.)



**If you are not convinced that there was a genuine stall then you should award a Perception Zero (PZ) instead of a normal mark**

Happy judging, be critical and fair.

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