

**AAIB Bulletin No: 7/93**

**Ref: EW/G93/05/01**

**Category: 1c**

**Aircraft Type and Registration:** Stampe SV4C, G-BHFG

**No & Type of Engines:** 1 Renault 4PO3 piston engine

**Year of Manufacture:** 1945

**Date & Time (UTC):** 1 May 1993 at 1020 hrs

**Location:** Gloucestershire Airport

**Type of Flight:** Private (training)

**Persons on Board:** Crew - 2                      Passengers - None

**Injuries:** Crew - None                      Passengers - N/A

**Nature of Damage:** Scraped wingtips, propeller ends broken, damage to engine cowling and exhaust assembly

**Commander's Licence:** Commercial Pilot's Licence with Instrument and Instructor ratings

**Commander's Age:** 28 years

**Commander's Flying Experience:** 1,150 hours (of which 2 were on type)  
Last 90 days - 90 hours  
Last 28 days - 20 hours

**Information Source:** Aircraft Accident Report Form submitted by the pilot

The commander occupied the front cockpit during a circuit training detail with the aim of instructing the pilot in the rear cockpit in the art of landing the Stampe. The pilot under instruction held a Private Pilot's Licence; he had no previous Stampe experience but he had flown a Tiger Moth a few days before the accident. The weather was overcast with a visibility of 3,000 metres and the wind was 3 to 8 kt directly across the runway.

During the landing from the fifth circuit, the pilot under instruction did not flare sufficiently and the instructor warned him that the aircraft would bounce, which it did. After the first bounce the pilot was instructed to "hold off" a little more but the aircraft bounced again. After the second bounce, the pilot was instructed to apply full back stick, which he did, and the aircraft dropped from about 18 inches in a three-point attitude. The aircraft bounced a third time and the crosswind from the left lifted the left wing and veered the aircraft to the right. Taking control the instructor applied full left aileron and rudder but he was unable to prevent the right wingtip from striking the tarmac. There followed a rapid swing to the left which the instructor was unable to contain with full right rudder. The aircraft then

started to ground loop and tipped onto its nose. After switching off the fuel and magnetos both pilots vacated the aircraft without difficulty.

The Stampe SV4C has an unusual wheel braking system. Symmetric wheel braking is applied by a hand operated lever. Unlike the Chipmunk, differential brake cannot be applied in a progressive manner by a combination of rudder pedal deflection and lever tension; in the Stampe, the application of full rudder is accompanied by differential wheelbrake whether or not the pilot desires it and irrespective of the position of the hand brake lever. Use of the handbrake lever with one rudder pedal deflected results in the application of brakes to both main wheels.

The instructor attributed the accident to his limited experience on type and, in particular, his failure to appreciate that the aircraft would bounce significantly, even though it was in the correct attitude for a three-point landing, from a 'drop height' of 18 inches . He believed that the aircraft tipped onto its nose partly because of the inadvertent application of right brake when full right rudder was applied. All his previous flying experience was in aircraft with heel or toe brakes in which the application of full rudder can be achieved without the unwanted application of wheelbrakes.