

# Stampe SV4C(G), G-FORD

## AAIB Bulletin No: 10/96 Ref: EW/C96/7/7 Category: 1.3

<b>Aircraft Type and Registration:</b>	Stampe SV4C(G), G-FORD
<b>No &amp; Type of Engines:</b>	1 DH Gipsy Major 10 Mk 1 piston engine
<b>Year of Manufacture:</b>	1946
<b>Date &amp; Time (UTC):</b>	16 July 1996 at 1615 hours
<b>Location:</b>	East Tytherley, Hampshire
<b>Type of Flight:</b>	Private
<b>Persons on Board:</b>	Crew - 1 Passengers - 1
<b>Injuries:</b>	Crew - Serious Passengers - Serious
<b>Nature of Damage:</b>	Substantial
<b>Commander's Licence:</b>	Airline Transport Pilot's Licence
<b>Commander's Age:</b>	30 years
<b>Commander's Flying Experience:</b>	3,495 hours (of which 10 were on type) Last 90 days - 14 hours Last 28 days - 4 hours
<b>Information Source:</b>	AAIB Field Investigation

### History of the flight

The pilot had completed approximately 50 hours flying experience on a Tiger Moth before he converted to G-FORD. His conversion was conducted by the owner of the Stampe and the aircraft was hangared at a private airstrip close to the owner's house. The grass airstrip, which is in very good condition, is in a sheltered location and has a usable length of approximately 600 metres. It is orientated north/south and has a slight upslope towards the north. To the south, there is a sparsely wooded knoll which would require a slightly steep approach path; there are some mature trees on the approach and these would result in a curved final approach track. The accident pilot was very familiar with operating from the airstrip.

On the day prior to the accident, the pilot had flown in G-FORD from the airstrip to Old Sarum and refuelled the aircraft to full; his return trip was approximately 20 minutes and during both flights the aircraft was fully serviceable. The next day the weather was good with an easterly surface wind of 5 to 10 kt. The pilot, accompanied by a friend who was also a qualified commercial pilot but with no experience of flying the Stampe, arrived at the airstrip in the afternoon with the intention of taking G-FORD for a flight. He initially went to the house where he received permission from the aircraft owner's wife to fly the aircraft. For the first flight, the pilot was in the rear seat and he retained control for the take-off. Once airborne, he decided to fly to Old Sarum and established the aircraft at approximately 2,500 feet gl for the transit. During the cruise, the pilot carried out some aerobatics and also allowed his friend in the front seat to handle the aircraft including some aerobatics. The pilot took control of G-FORD for the approach and landing at Old Sarum. On the ground, they secured and left the aircraft and went for a coffee. After approximately 20 minutes, they started the aircraft for the return flight; the pilot was again in the rear seat and he recalls the fuel state, prior to departure, as being just above 3/4 full. He maintained control for the take-off and estimated the return flight as being slightly less than 20 minutes. During this flight, both occupants can remember doing some further aerobatics. Arriving overhead the airstrip, the pilot was flying the aircraft and the passenger had his feet and hands off the controls. G-FORD was initially on a southerly heading and the pilot noted that the wind sock was still indicating an easterly surface wind of 5 to 10 kt.

After a short downwind leg, the pilot commenced a right hand final turn for a northerly landing; he remembers that he established a glide approach at between 50 and 55 kt and that the aircraft was performing normally. He can recall seeing the landing strip and think that he may have flown through the centre-line but cannot remember anything from that point until the aircraft was on the ground. The passenger confirms the pilot's account of the events up to the final turn. Thereafter, he can remember that the aircraft seemed low and slow and was fairly close to some trees. He did not have his hands or feet on the controls and could see the landing strip which seemed quite close. Suddenly, he was aware of a burst of power from the engine and shortly afterwards heard a scream from the rear cockpit; his next recollection is of the ploughed field coming up towards him. During the last moments of flight, he thought that the aircraft was upright with no substantial bank or yaw.

Both occupants were wearing five-point harnesses in addition to an aerobatic lap strap; they were both wearing soft helmets. Neither of them were unconscious but the passenger had badly injured his leg and they were both aware of the sound of dripping fuel. The pilot helped the passenger to release his straps and they both crawled clear of the aircraft. Once clear, the passenger told the pilot to go for help and the pilot went to the owner's house to raise the alarm. At the house, the owner's wife took control of the situation; she alerted the emergency services and drove to the main road where she left the pilot to direct the rescuers. She then went to find the passenger and stayed with him, rendering first aid until the medical services arrived. Once they arrived, an assessment was made that the injuries to the passenger were serious and a helicopter was alerted to fly him to hospital.

Subsequently, the pilot confirmed that he was not aware of any problem with G-FORD up to the time of the accident. The aircraft was within weight limits for aerobatics and the centre of gravity was also within normal limits.

### **Technical examination**

Examination of the accident site showed that the aircraft had struck the ground about 260 metres from the landing strip threshold, about 100 metres to the right of the centre-line. The initial impact

was at slow speed, at a shallow angle and on the right-hand wing tip, indicating that the aircraft was still banked to the right at that point. In the subsequent contact the main landing gear was forced to the right, wrenching the fuselage out of the plane of the lower wing and disrupting the longerons. As a result, both right-hand lap straps became free in the impact.

Marks on the propeller showed that it was still rotating when the aircraft struck the ground and, although the fuel had leaked away through a fractured weld, the pattern of damage to the fuel tank showed that it had contained a substantial amount of fuel. Although disrupted, the flying control system could be traced throughout the aircraft and examination showed that all the damage had been as a result of the ground impact.