

Scheibe SF25C, G-BPZU, 15 April 1997

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Aircraft Type and Registration:	Scheibe SF25C, G-BPZU
No & Type of Engines:	1 Limbach L 2000-EA1 piston engine
Year of Manufacture:	1989
Date & Time (UTC):	15 April 1997 at 0810 hrs
Location:	Parham Airfield, West Sussex
Type of Flight:	Private
Persons on Board:	Crew - 2 - Passengers - Nil
Injuries:	Crew - 1 serious - Passengers - N/A
Nature of Damage:	Engine shock loaded and damage to propeller blade
Commander's Licence:	Private Pilot's Licence
Commander's Age:	42 years
Commander's Flying Experience:	1,200 hours (of which 206 hours were on type) Last 90 days - 6 hours Last 28 days - 1 hour
Information Source:	AAIB Field Investigation

The commander had arrived early at the airfield and, with the assistance of a friend, had brought the aircraft out of its portable hangar and positioned it for start. The weather was good and the short grass around G-BPZU was still damp from the morning dew. After completing the external checks, the commander prepared to start the aircraft. At about this time, the second pilot arrived; he was the CFI of the gliding club and was going to accompany the commander on the planned flight to Lydd Airport.

After completing the pre-start checks, the commander attempted to start the aircraft from battery power but was unsuccessful. G-BPZU had not flown since 4 April 1997 and, with a low capacity battery, the failure to start was not an unusual occurrence. On this occasion, one pilot then tried to hand swing the propeller with the other pilot in the cockpit but this was also unsuccessful. Thereafter, both pilots drove across to the hangar area where they looked for the spare battery and a pair of jump leads (2.65 metres long, supplied by the aircraft manufacturer). They could not find the

battery but brought the leads back to the aircraft. After reconfirming that the brakes were on, the commander sat in the left seat and the other pilot positioned his car roughly parallel with and just forward of the leading edge of the right wing and pointing towards the fuselage; the relative positions of the car and the aircraft are shown in the attached diagram.

With the aircraft canopy closed, the aircraft connection of the jump leads was passed through the DV (Direct Vision) window on the right side of the canopy and plugged into the socket on the right side of the aircraft instrument panel. The other end of the jump leads was then connected to the battery of the car; the car battery is positioned on the left side of the engine compartment. The pilot outside GBPZU started the car engine and then positioned himself between the front of the car and the right side of the aircraft cockpit. At the time he recalled that he felt uncomfortable in that position which was very restricted with little room to move between the propeller, wing and car. The subsequent aircraft start was successful and the commander advanced the throttle to approximately 1,200 to 1,400 RPM. The pilot outside called for a reduction in engine throttle and the commander reduced the throttle to 1,000 RPM, before disconnecting the jump leads from the dashboard and passing them out the DV window.

The pilot outside then removed the jump leads from the car battery and held them in his left hand while he prepared to close the car bonnet. At about this time, he thought that the aircraft moved slightly and so he in turn moved slightly forward of the wing; the commander in the cockpit had no sensation that the aircraft moved at any time. As the pilot outside lowered the car bonnet with his right hand, he was suddenly thrown to the ground and shortly afterwards realised that he had suffered severe damage to his left arm. The blade of the propeller on an upward stroke had contacted his upper thigh and left arm; almost immediately, the engine stopped. The commander had heard the other pilot cry out and had then secured the aircraft before going to his assistance. They took the car and drove towards the club premises to get assistance. Luckily, one of the club members was a local doctor and he rendered first aid while another club member initiated the emergency accident procedures. The effectiveness of this clear simple procedure was demonstrated when a local ambulance arrived within approximately five minutes and a police helicopter arrived from Shoreham Airfield shortly afterwards. The injured pilot was airlifted to hospital in Chichester.

An examination of the undisturbed aircraft about three hours later indicated that the brakes were on and effective; there was no physical indication that the aircraft had moved from its original position. The propeller was subsequently removed for repair and the engine, which was due for overhaul, was removed and inspected for shock-loading. The pilot sustained a deep cut to the left thigh and extensive injuries to his left arm. The leg has healed well and the arm is still undergoing treatment.