

No: 14/83

Ref: EW/G 83/08/12

Aircraft type and registration: Westland Lysander III (vintage aircraft) G-BCWL

Year of manufacture: Rebuild completed 1978

Date and time (GMT): 21 August 1983 at approximately 1437 hrs

Location: Near Chipping Norton, Oxon

Type of flight: Demonstration

Persons on board: Crew — 2 Passengers — None

Injuries: Crew — 2 (minor) Passengers — N/A

Nature of damage: Propeller, fin rudder and rear fuselage, main wheel spats and mainplane surfaces all damaged

Commander's Licence: Commercial Pilot's Licence, plus Instrument Rating

Commander's Age: 55 years

Commander's total flying experience: 4041 hours (of which 15 were on type)

The aircraft had positioned at Halfpenny Green during the morning to participate in an Air Show later in the day. As the aircraft engine, a Bristol Mercury XX, had been troublesome in the past the owner's engineer accompanied the pilot on this occasion. The aircraft was refuelled at Halfpenny Green and following some difficulty with engine starting completed its display during which air traffic control reported 'flashes of flame' from the aircraft when the throttle was pumped during one landing. The pilot decided to cruise back to the aircraft's base at Blackbushe following the display without shutting down. During the return flight whilst flying at 2000 ft just below an unbroken cloud layer there were a series of backfires and associated reduction of power. The engine briefly recovered to normal running before a total loss of power. The pilot successfully completed a forced landing in a recently harrowed field but during the ground roll the aircraft turned over onto its back. In their haste to evacuate the aircraft with fuel spilling around them both occupants were slightly injured.

Subsequent examination of the aircraft has revealed that during extensive refurbishment some years ago the fuel tank vent system had been modified. The external vent pipe had been removed and three 1/8" diameter holes drilled in the fuel filler cap. A rectangular hole was cut in the filler cap cork gasket to allow the tank to breathe through the filler cap holes. However, the gasket was free to rotate relative to the cap and could turn to blank off the holes. It is believed that this happened after refuelling at Halfpenny Green and therefore the tank was sealed allowing the engine to run normally for a time after which it suffered fuel starvation. This mechanism could explain some of the previous engine problems experienced.