

AAIB Bulletin No: 7/93

Ref: EW/G93/04/04

Category: 1c

Aircraft Type and Registration: Luscombe 8A Silvaire, G-BTDF

No & Type of Engines: 1 Continental C90-8F piston engine

Year of Manufacture: 1947

Date & Time (UTC): 11 April 1993 at 1500 hrs

Location: 12.5 nm, north west of Newcastle

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - 1

Injuries: Crew - None Passengers - None

Nature of Damage: Landing gear and propeller broken, damage to wing tips and fuselage

Commander's Licence: Private Pilot's Licence with IMC and Night Ratings

Commander's Age: 44 years

Commander's Flying Experience: 406 hours (of which 17 were on type)
Last 90 days - 4 hours
Last 28 days - 4 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

The aircraft, which was maintained by its owner on a PFA 'Permit to Fly', was being used for the check-out of a new pilot. The intention had been to depart from the grass strip for the check-out but the low cloud-base prevented this. Instead, the exercise was flown as a series of left-hand circuits, to a maximum height of some 600-700 feet agl rather than the normal circuit height of 1,000 feet agl. The touch-and-go landings were almost directly into the wind of about 18 kt and the strip is about 600 metres long.

The check pilot states that, after four or five of these circuits, the pilot being checked was closing the throttle on the downwind leg, with carburettor heat applied and aiming for 1,500 RPM, when the engine stopped entirely. The check pilot took over the controls and turned towards the strip, with the intention of carrying out a 'dead stick' landing, turning off the fuel and magnetos and tightening the seat belts. With the available height he was not, however, able to complete the 180° turn and the aircraft hit the ground approximately 15° nose down in a ploughed field. There was extensive damage to the aircraft but no fire and the two pilots were able to leave the aircraft quickly.

When the aircraft was examined after the accident by the owner and others, it was found that the fuel tanks were still at least half-full, with no water and the carburettor heat control was in the 'hot' position. There were no signs of mechanical damage in the engine: there was good compression and the engine would 'turn over' easily by hand. It was, however, noted that the spark plugs showed signs of 'rich running' and the exhaust was distinctly 'sooty'.

In considering the possible causes of the engine stoppage, the check pilot notes that, with the low circuit height and brisk wind, the engine was operating at high power for a shorter period on each circuit than would normally be the case. In addition, it had appeared earlier that the engine may have been running 'rich'. He considers that these effects together could have caused fouling of the spark plugs, sufficient to cause engine stoppage when reducing power on the downwind leg.