

AAIB Bulletin No: 11/94

Ref: EW/G94/07/05

Category: 1.3

Aircraft Type and Registration: Caudron C270 Luciole, G-BDFM

No & Type of Engines: 1 Salmson 7AC radial piston engine

Year of Manufacture: 1932

Date & Time (UTC): 3 July 1994 at 1620 hrs

Location: 2¹/₂ nm north west of Salisbury, Wiltshire

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - 1

Injuries: Crew - None Passengers - None

Nature of Damage: Damage to the propeller, engine and accessories and damage to the upper plane

Commander's Licence: Airline Transport Pilot's Licence with Instructor rating

Commander's Age: 32 years

Commander's Flying Experience: 2,192 hours (of which 39 were on type)
Last 90 days - 157 hours
Last 28 days - 41 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

The aircraft was returning to Compton Abbas in Dorset following the annual Popular Flying Association (PFA) meeting at Cranfield, Bedfordshire. The aircraft was in cruising flight some 3 nm NNW of Old Sarum Airfield, near Salisbury, when the engine began to run roughly and a slight power loss occurred. The pilot checked the fuel contents, which was still over half a tank, the oil pressure and the mixture setting. These were normal and the pilot found that neither forward throttle movement nor adjustment of the fuel mixture seemed to give any improvement in engine power. The pilot made several attempts to restore the engine power by gently closing and re-opening the throttle but in each case the engine spluttered as the throttle was re-opened and only about half the normal power was achieved.

During the rough running the pilot had been turning the aircraft towards the airfield at Old Sarum but a further loss of power occurred. At this point the pilot made the decision to land in a field under crop; this turned out to be a crop of mature wheat. The remaining power was used to set up a proper approach and landing and the throttle was closed as the aircraft settled into the crop. After a short roll the aircraft nosed over in the crop and came to rest almost inverted on its upper plane. As the Caudron Luciole is an open cockpit biplane, both the pilot and the passenger were able to leave the aircraft without restriction.

During the subsequent examination of the engine it was found that a substantial split had developed in the portion of the engine exhaust manifold past which the engine intake air passes into the carburettor. It appears, therefore, that this introduction of hot exhaust gases into the carburettor was sufficient to disturb the engine mixture and account for the loss of power.