

AAIB Bulletin No: 5/93

Ref: EW/G93/02/14

Category: 1c

Aircraft Type and Registration: Cessna F177RG Cardinal RG, G-AYSY
No & Type of Engines: 1 Lycoming IO-360-A1B6 piston engine
Year of Manufacture: 1971
Date & Time (UTC): 23 February 1993 at 1538 hrs
Location: 5 miles north of Denham, Uxbridge, Middlesex
Type of Flight: Private
Persons on Board: Crew - 1 Passengers - 1
Injuries: Crew - None Passengers - None
Nature of Damage: Left wing tip leading edge, engine and propeller
Commander's Licence: Private Pilot's Licence
Commander's Age: 46 years
Commander's Flying Experience: 174 hours (of which 12 were on type)
Last 90 days - 3 hours
Last 28 days - 3 hours
Information Source: Aircraft Accident Report Form submitted by the pilot

The flight from Blackpool had passed without incident until the aircraft was approaching its destination, Denham. On passing Amersham the pilot initiated a descent, setting the propeller control to give 2,700 RPM, lowering 10° of flap and the landing gear, then retarding the throttle. Following a FREDA check the airspeed was reduced to 90 mph. When the throttle was then advanced the engine did not respond normally, full throttle only achieved 1,500 RPM. On seeing smoke from the engine cowls and noting that the engine oil pressure had dropped to zero the pilot made a MAYDAY call.

Realising that he was unable to reach Denham or clear Chalfont St Peters the pilot made a left turn towards open farmland. Using such power as the engine would produce to reach the field chosen for the forced landing, he then closed the throttle and the engine stopped with the propeller vertical. As he flared hard to cross a low hedge and ditch at the edge of the field, the left wing tip struck a bush and the lower blade of the propeller caught a broken strand of barbed wire. The aircraft touched down and rolled for 165 yards before coming to rest without further damage. The two occupants were uninjured and evacuated the aircraft without difficulty.

The nose and left landing gear along with the underside of the fuselage and the centre of the tailplane were covered with oil and a pool of oil formed under the nose of the aircraft.

Another aircraft following G-AYSY at the time of the incident reported seeing a large plume of blue smoke from the aircraft just a few seconds before the MAYDAY transmission.

Examination of the engine revealed that the oil drain plug was missing. The engine had recently been removed from the aircraft and had been sent for overhaul. Following its return and re-installation the aircraft had operated for a total of 6 hours up to the drain plug falling out. The engine sump has a drilling adjacent to the drain plug threaded hole to allow for wire locking of the drain plug, however, the type of quick-release drain plug fitted did not have a similar wire locking facility.