

**Aircraft type and registration:** Pierre Robin CEA DR400/180R G-EKOE

**No & Type of engines:** 1 Lycoming O-360-A1A piston engine

**Year of Manufacture:** 1980

**Date and time (GMT):** 7 May 1987 at 1715 hrs

**Location:** Dunstable Airfield

**Type of flight:** Private

**Persons on board:** Crew — 1                      Passengers — 1

**Injuries:** Crew — None                      Passengers — None

**Nature of damage:** Aircraft totally destroyed

**Commander's Licence:** Private Pilot's Licence

**Commander's Age:** 36 years

**Commander's Total Flying Experience:** 1083 hours (of which 80 were on type)

**Information Source:** Aircraft Accident Report Form submitted by the pilot and AIB examination of the engine.

The aircraft, which was normally employed as a glider tug, had been subject to a 'daily inspection' and taxied across the airfield for a distance of some 800 metres prior to departing in order to pick up a glider which had landed away. After reaching the take-off area of the airfield, it was shut down whilst preparations for this recovery were made. When the pilot attempted to re-start the engine some 5 minutes later, it would not start and so he elected to crank-over the engine in order to vent the cylinders of any excess fuel, but this time with the electric fuel pump switched off.

A second attempt was then made to start the engine, but with the same lack of response. The pilot later reported that it was turning over quite normally on the starter motor but without once firing.

At this stage, he and his passenger became aware of hazy smoke or vapour to the left of the canopy which, within seconds, turned into flame. Without any discussion, both occupants quickly vacated the aircraft. Flames could be seen coming over the left wing trailing edge and around the fuel filler cap. By the time they were both clear the engine cowling and underside of the fuselage were well alight, the complete aircraft burning out within several minutes.

Subsequent examination of the wreckage revealed that most of the engine fuel system had been burnt away, including the lower portion of the carburettor, all of the fuel supply hoses and part of the engine driven fuel pump. It could therefore not be determined if a defect had occurred in the fuel system or the intake system had become flooded during the attempted starts.

The aircraft had undergone an annual check by a regularly used maintenance organisation, some six weeks and 35 flying hours before the accident, during which the power plant was signed-off after checks for leaks following a ground run. In addition, as a result of an excessive 'mag drop' the engine was run with the cowlings off eleven days before the fire, by the same maintenance organisation, with no defects in the fuel system being apparent.

At the time of the fire the aircraft was operating on MOGAS fuel, and had been doing so for approximately 2 years. The maximum ambient temperature on the day of the accident was estimated at 17°C.