ACCIDENT

Aircraft Type and Registration: Zenair CH 601XL Zodiac, G-CDJM

No & Type of Engines: 1 Rotax 912 ULS piston engine

Year of Manufacture: 2005 (Serial no: PFA 162B-14303)

Date & Time (UTC): 22 July 2012 at 1230 hrs

Location: Langham, Norfolk

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - 1

Injuries: Crew - None Passengers - None

Nature of Damage: Extensive damage to fuselage, cockpit area, wings and

engine ancillaries

Commander's Licence: Private Pilot's Licence

Commander's Age: 74 years

Commander's Flying Experience: 1,312 hours (of which18 were on type)

Last 90 days - 18 hours Last 28 days - 7 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

Synopsis

The aircraft suffered a loss of engine power, believed to be due to fuel starvation. A forced landing attempt was made to a disused runway, but the engine stopped before reaching it. The aircraft touched down in a wheat field and inverted. Both occupants were uninjured but had extreme difficulty escaping from the wreckage.

History of the flight

The aircraft took off from its base at Little Snoring in Norfolk for a local flight. The weather was fine, with an estimated surface wind of 250° at 15 to 20 kt. Air temperature was about 23°C. Fifteen minutes into the flight, with the aircraft at 1,500 ft altitude, the engine started to lose power and run roughly. The pilot applied

carburettor heat immediately and, noticing that the fuel pressure was reading zero, selected the electric fuel pump on. Both fuel tanks were indicating one third full (which was believed to be accurate) so the pilot switched fuel feed from the left tank to the right tank, but without improvement.

About 2 nm ahead was a disused runway at the airfield at Langham, which the pilot decided to attempt to reach; it had a short but usable paved length, orientated into wind. Just short of the start of the intended landing area, at a height of about 50 ft over a wheat field, the engine stopped abruptly. The pilot slowed the aircraft to 45 kt and unlocked the canopy prior to touchdown in

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the field. As soon as the mainwheels touched the crops the aircraft pitched nose-down and inverted, coming to a very rapid halt in about 15 m.

The pilot and his passenger, who were both wearing four-point harnesses, were uninjured. With the aircraft inverted and the canopy transparency shattered, there was only a space to the left side of less than 12 inches through which to escape, and both occupants had extreme difficulty exiting the aircraft. The pilot subsequently contacted his home airfield by telephone to inform them of the accident.

The pilot attributed the rough running engine and stoppage to fuel starvation. The aircraft was recovered to a local facility and the pilot inspected it the following

morning. Damage was extensive, and included a severely distorted cockpit floor which trapped the main fuel line, precluding an attempt to check fuel flow. The cause of the fuel starvation could not be established.

The pilot noted that the aircraft had made one 15-minute flight earlier on the day of the accident and three flights totalling about 1.5 hours duration three days earlier. All these flights had been uneventful. Prior to the first flight on the day of the accident, the pilot had refuelled with AVGAS 100LL (as was usual) to 40 litres total fuel, sufficient for about 2 hours normal flying with 20 minutes reserve.

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