

No: 11/92

Ref: EW/G92/07/02

Category: 1c

Aircraft Type and Registration: Piper J3C-65 Cub, G-BSNF

No & Type of Engines: 1 Continental O-200-A piston engine

Year of Manufacture: 1941

Date & Time (UTC): 2 July 1992 at 1312 hrs

Location: Boorley Green, Hampshire

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - None

Injuries: Crew - None Passengers - N/A

Nature of Damage: Slight damage to landing gear and lower fuselage

Commander's Licence: Private Pilot's Licence

Commander's Age: 49 years

Commander's Flying Experience: 1,600 hours (of which 40 were on type)
Last 90 days - 20 hours
Last 28 days - 10 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

The aircraft was being flown for the first time after a full overhaul and the engine had, therefore, been subjected to an extensive engine run before the test flight. Adjustments were made to the mixture and slow-running settings after which the RPMs at full power and on the individual magnetos were satisfactory.

The take-off was from a farm strip some 440 yards long, slightly downhill and with no wind. The take-off and initial climb were normal but, at between 250 and 300 feet and without any warning, the engine slowed and stopped within about three seconds. The pilot states that, with this sort of emergency in mind, he had previously surveyed the neighbouring golf course for possible forced-landing areas and had selected two fairways as being suitable. However, with the engine stopped the rate of descent was high (this J3 Cub is of the 'clipped wing' variety, with reduced span) and the pilot found himself too close to one fairway and too far from the other. He attempted a 360° turn to land on the nearer of the two fairways but after 270° felt that the aircraft was close to an incipient spin and just had just sufficient height to level the wings and land ahead. This landing was into a clear space but, with the combination of high rate of descent and low airspeed, there was no flare and this caused the

landing gear to fail. The pilot was not injured, which he attributes to the four-point harness which had been fitted.

The cause of the power failure was initially obscure and only became apparent when the aircraft was later ground-run, after repair. The aircraft had been transported to a larger grass airfield for this ground running and first flight and, in a stiff headwind, the engine was found to lose power. After extensive investigation of the ignition system and the carburettor, it was found that an incorrect exhaust muffler had been fitted. The pilot considers that this muffler was not factory-produced and did not have sufficient internal apertures to allow free passage of the exhaust gases leading to a build up of backpressure.

To date, it has not been possible to identify positively at what stage this muffler had been fitted; it is possible that this condition had been present, but undetected, for a number of years.