

No: 9/87

Ref: 1c

Aircraft type and registration: Auster J2 Arrow G-BEAH

No & Type of engines: 1 Continental Motors Corp C75-12 piston engine

Year of Manufacture: 1946

Date and time (UTC): 14 June 1987 at 1325 hrs

Location: Ashendon, Bucks

Type of flight: Private (pleasure)

Persons on board: Crew — 1 Passengers — 1

Injuries: Crew — None Passengers — None

Nature of damage: Substantial damage to the airframe, engine and propeller

Commander's Licence: Private Pilot's Licence

Commander's Age: 58 years

Commander's Total Flying Experience: 340 hours (of which 5 were on type)

Information Source: Aircraft Accident Report Form submitted by the pilot and examination of the propeller and crankshaft.

The aircraft was cruising at 1500 feet and with 2100 revolution per minute (rpm) set, giving an indicated airspeed of about 60 knots (kt). There had been no significant power adjustment for some time. The pilot reports hearing a bang and seeing the propeller dropping away to the left. It struck the inboard section of the left wing causing disruption of the leading edge. The pilot was not aware of any vibration prior to the event or of an increase in engine rpm afterwards.

The engine was shut down, the aircraft was set up in a descent at 50 kt and, by application of full right rudder, the pilot was able to maintain straight flight at that airspeed. The aircraft struck the ground in a slightly nose down attitude yawing to the left. Both occupants were wearing upper torso restraint and vacated the aircraft uninjured.

Examination of the crankshaft and propeller showed that the tapered crankshaft extension had failed in torsional fatigue originating at the base of the rear end of the drive key slot. It was not possible to determine how long the crack had been present. A new propeller had been fitted 35 hours previously.