

AAIB Bulletin No: 4/94

Ref: EW/G94/01/01

Category: 1.3

Aircraft Type and Registration: Denney Kitfox Mk 3, G-BTIF

No & Type of Engines: 1 Rotax 582 piston engine

Year of Manufacture: 1991

Date & Time (UTC): 2 January 1994 at 1230 hrs

Location: Near Bourn Airfield, Cambridgeshire

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - None

Injuries: Crew - None Passengers - N/A

Nature of Damage: Damage to landing gear and propeller

Commander's Licence: Private Pilot's Licence with IMC and Night Ratings

Commander's Age: 28 years

Commander's Flying Experience: 840 hours (of which 50 were on type)
Last 90 days - 15 hours
Last 28 days - 7 hours

Information Source: Aircraft Accident Report Form submitted by the pilot,
telephone conversations with the pilot and the Chief
Engineer of the Popular Flying Association

The pilot reported that whilst returning from a local flight, the engine stopped without warning. The weather at the time was good, with good visibility and the 1,000 feet wind was 20 kt from 300°. At the time of the power loss, the aircraft was being flown at approx 1,300 feet on a heading of 090°.

The pilot trimmed the aircraft for best glide speed and attempted to restart the engine. At about the same time (being an ex-glider pilot) he selected a level, into wind, field free of obstructions.

His attempts to restart the engine were unsuccessful, so he sent out a call on the Bourn Airfield radio frequency, before carrying out a cramped circuit followed by a forced landing. On touchdown, the waterlogged state of the field caused the aircraft to stop almost at once, inflicting damage to the landing gear and propeller.

Examination after the accident confirmed that the engine was seized. The pilot noted that approximately 1/2 gallon of 2-stroke engine oil had been used over a period of 45 minutes. An examination was also made by an inspector of the Popular Flying Association (PFA), the delegated

airworthiness body for the type. He noted that the bulkhead carried indications to show that a considerable quantity of oil had flowed onto it. Further examination revealed that the fitting at the bottom of the oil tank had separated, allowing the oil to drain away.

The tank is reportedly of a non-metallic, plastics type material, and is supplied by the manufacturer of the aircraft kit with the fitting already bonded into position. At present, no precise details of the materials and adhesive used are available. The PFA are contacting the kit manufacturer to establish this information and details of the tank assembly procedures used at the factory.