

Aircraft type and registration: DH82A Tiger Moth G-IESH

No & Type of engines: 1 De Havilland Gipsy Major 1F piston engine

Year of Manufacture: Not known

Date and time (UTC): 10 January 1988 at 1150 hrs

Location: Nayland Airfield, Colchester, Essex

Type of flight: Private (pleasure)

Persons on board: Crew — 1 Passengers — 1

Injuries: Crew — 1 (minor) Passengers — 1 (serious)

Nature of damage: Substantial — to nose area and front cockpit

Commander's Licence: Private Pilot's Licence

Commander's Age: 61 years

Commander's Total Flying Experience: In excess of 2000 hours (of which 400 were on type)

Information Source: Aircraft Accident Report Form submitted by the pilot and AAIB telephone enquiry.

The engine had not been run for 4 months and the aircraft was refuelled from cans with 10 gallons of 3 star Mogas through a filter. After a clean start the engine was run for 5 minutes, checks completed and a run-up carried out. The aircraft was taxied to the holding point and further run-ups were made.

Take-off was then commenced on the private grass strip, into a light southerly breeze. The take-off run was along a significant down-slope. The aircraft became airborne but at 90 to 100 feet agl the engine failed completely and despite a magneto switch and fuel check, did not restart. The pilot then tried to turn the fuel off, and seeing a house ahead of the aircraft tried to turn the aircraft gently to the right in order to avoid it. During these activities the aircraft stalled, apparently without pre-stall warning, and rotated 180° to the right.

The aircraft crashed in a steep nose-down attitude in the field, into what was now an up-slope. The nose and front cockpit were severely damaged and the passenger received serious cuts on the face and was knocked unconscious. The pilot received relatively minor cuts to the face. Full upper torso restraint was being worn by both occupants and held on impact. There was no fire but the fuel pipe had broken six inches below the fuel cock and fuel was pouring over the passenger. He was quickly extricated by the pilot and onlookers and taken to hospital. He subsequently suffered temporary respiratory problems.

The cause of the engine failure is not known. The magnetos were severely damaged, and the springs broken, apparently by impact forces. The broken fuel pipe and nose-down attitude of the aircraft, precluded the possibility of recovering sufficient fuel for analysis.

Airworthiness Notice 98 allows the use of 4 star Mogas for the Gipsy Major 1F engine providing it is to BS 40-40 specification, and supplied by an approved aerodrome installation. The Notice also advises that long storage in the aircraft fuel tanks should be avoided, and that carburettor icing is more likely with the use of Mogas.