

No: 10/90

Ref: EW/G90/05/27

Category: 1c

Aircraft Type and Registration: Evans VP1, G-BIFO

No & Type of Engines: 1 Volkswagen 1834 Type 3 piston engine

Year of Manufacture: 1982

Date and Time (UTC): 31 May 1990 at 1320 hrs

Location: Doyniton, Avon

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - None

Injuries: Crew - None Passengers - N/A

Nature of Damage: Left main landing gear failure and damage to the propeller and lower engine cowling

Commander's Licence: Private Pilot's Licence

Commander's Age: 42 years

Commander's Total Flying Experience: 58 hours (of which 3 were on type)

Information Source: Aircraft Accident Report Form submitted by the pilot, report from the materials department of the RAE Farnborough and enquiries with the Meteorological sections of Bristol (Lulsgate) and RAF Lyneham

During the landing roll on runway 20 the pilot felt a vibration on the left side of the aircraft. The pilot increased the engine power slightly and then cut the power. He held the stick back and balanced the weight of the aircraft on the right landing gear. As the speed decreased however the left landing gear then failed causing the aircraft to pitch nose down and pivot to the left. It came to rest on the runway on a heading at 90 degrees to the landing direction.

The fractured landing gear was examined by the materials department of the Royal Aerospace Establishment at Farnborough. Their examination concluded that the landing gear fractured under overload conditions after experiencing excessive bending that took it beyond the elastic limit of the aluminium alloy plate from which it had been manufactured. There was no evidence on the fracture of any pre-existing fatigue cracks or corrosion damage and the features were wholly consistent with fast, ductile rupture. The force that precipitated the failure was from the forward left hand side of the aircraft.

The wind reported by the pilot was 200 degrees, light. Subsequent enquiries with the meteorological sections of Bristol (Lulsgate) and RAF Lyneham indicated that at the time of the accident the wind was 170-180 degrees, 12-13 knots and 180-200 degrees 10 knots, gusting 15-16 knots respectively.