

No: 11/92 **Ref: EW/G92/08/03** **Category: 1c**

Aircraft Type and Registration: Globe GC-1B Swift, G-AHUN

No & Type of Engines: 1 Lycoming IO-360-A1D piston engine

Year of Manufacture: 1946

Date & Time (UTC): 4 August 1992 at 1320 hrs

Location: Urchfont strip, Devizes, Wiltshire

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - None

Injuries: Crew - None Passengers - N/A

Nature of Damage: Damage to landing gear doors, underside of fuselage and hydraulic pipes; also propellor damage

Commander's Licence: Private Pilot's Licence with Instrument, IMC and Night ratings

Commander's Age: 47 years

Commander's Flying Experience: 1,140 hours (of which 18 were on type)
Last 90 days - 26 hours
Last 28 days - 12 hours

Information Source: Aircraft Accident Report Form submitted by the pilot, together with AAIB examination of aircraft under repair

The pilot reported that he carried out a normal approach to land and all indications showed gear down and locked. Although the subsequent touch-down was smooth, the main wheels reportedly folded inwards.

The two main landing gear legs on the aircraft are designed to retract inwards by operation of individual hydraulic retraction units each of which is housed adjacent to its leg in the appropriate landing-gear bay. Both units are supplied with pressure through piping from a single electro-hydraulic power-pack mounted on the engine bulkhead. Each retraction unit incorporates a crank which rotates during gear extension and retraction. The direction of-movement of the crank depends upon whether the gear up or gear down lines are pressurized. The crank both moves the appropriate leg and, on completion of gear extension, forms part of an over-centring lock mechanism.

Once a gear leg reaches the fully extended and geometrically locked position, a down lock plunger extends, preventing any movement of the crank towards the retracted position. The down-lock plunger can only be released by application of pressure from the power-pack to the gear-up pipelines. Limit switches ensure that the electric motor in the power pack is isolated when both legs are fully down, and operation of those switches also causes the green gear-down light on the instrument panel to operate.

Examination of the aircraft during repair revealed no evidence of any damage or defect in the landing-gear legs or their mechanisms, although both landing-gear doors and some of the under-fuselage hydraulic piping was reported as having required repair. It is understood that the aircraft was lifted after the incident and that the gear was successfully lowered using the normal electro-hydraulic system.