

Aircraft type and registration: Beech 76 Duchess G-DUCH

No & Type of engines: 2 Lycoming O-360-A1G6D, LO-360-AIG6D, piston engines

Year of Manufacture: 1981

Date and time (UTC): 22 December 1987 at 1537 hrs

Location: Manston Airport, Thanet, Kent

Type of flight: Private (business)

Persons on board: Crew — 1 Passengers — None

Injuries: Crew — None Passengers — N/A

Nature of damage: Minor — to nose gear doors, fuselage, propellers, possible shock-loaded engines

Commander's Licence: Private Pilot's Licence with IMC and night ratings

Commander's Age: 39 years

Commander's Total Flying Experience: 790 hours (of which 147 were on type)

Information Source: Aircraft Accident Report Form submitted by the pilot.

The aircraft was on a flight from Manston to Lydd. The pilot requested an approach to runway 22 utilizing the on-test ILS in VMC. The aircraft was cleared for an approach, following which it was to turn left at 500 feet and climb to join the runway 04 circuit downwind.

The landing gear had lowered normally on the ILS approach, and retracted normally on the climb to the runway 04 downwind position. On the downwind leg to runway 04, the landing gear was selected down again but only the two main gear down lights illuminated, the in transit light stayed on, and the gear warning horn sounded. After two recycling attempts, ATC confirmed that the nose gear doors were closed, and the pilot returned to Manston.

Overhead Manston the same conditions pertained and despite numerous recycling attempts, emergency lowering, and pitch and yaw excursions to release the nose landing gear, it remained retracted. After 45 minutes overhead and a practice approach, an approach and landing was made on the grass runway 06 on the main landing gear. At 40—50 kt the nose touched the grass and the aircraft came to a rapid stop on the runway. The fuel and electrics had been switched off prior to touch-down.

When the aircraft was examined later it was found that the retraction fork on the nose gear door mechanism was positioned too high. The pin on the drag links would normally engage and push the fork upwards as the gear retracts. In this case the pin went under the fork thereby causing the door closed linkage to move too far up and back into an overcentre position. The nose gear was then effectively mechanically locked up.

The pilot was wearing diagonal upper torso restraint which held throughout the deceleration, the pilot was uninjured, and there was no fire.