No: 12/85 **Ref: EW/G85/06/05**

Aircraft type and registration:	Cessna 310 G-BHEH (light twin engined fixed wing aircraft)
Year of Manufacture:	1962
Date and time (GMT):	16 June 1985 at 1200 hrs
Location:	Denham Aerodrome
Type of flight:	Private (pleasure)
Persons on board:	Crew — 1 Passengers — 4
Injuries:	Crew — None Passengers — None
Nature of damage:	Damage to nose-cone, nose undercarriage doors and starboard propeller
Commander's Licence:	Private Pilot's Licence
Commander's Age:	51 years
Commander's Total Flying Experience:	700 hours (of which 90 were on type)
Information Source:	Aircraft Accident Report Form submitted by pilot.

The aircraft was returning to Denham following a pleasure flight to the Isle-of-Wight. The undercarriage was extended for landing with reportedly no abnormalities. However other aircraft movements necessitated a go-around, during which the undercarriage was retracted, again with no reported problems.

On the second circuit, the undercarriage was again selected "Down" at an indicated airspeed of 130 mph on base leg. The pilot reported then sensing vibration followed by a bang as the extension cycle began. On checking the underside of the aircraft with a mirror, he could see that, whilst both main undercarriages appeared to be "Down" and locked, the nose undercarriage was lying back against the underside of the fuselage and clearly had not fully extended. Following six unsuccessful attempts to wind the leg down manually, the pilot landed with the nose undercarriage partially retracted but with minimal damage to the aircraft.

Subsequent inspection of the aircraft revealed considerable distortion and damage to the nose undercarriage extension/retraction mechanism. On this type of aircraft, undercarriage movement is achieved by a central actuator which transmits motion through a system of push/pull rods, torque shafts and bellcranks to all three undercarriage legs. In particular, the shafting running forwards to the nose undercarriage had become buckled, and part of the attaching structure torn away, indicating that the mechanism had been subject to excessive loads during the extension cycle.

A check by the repair organisation has not revealed any mechanical abnormality which would account for this damage.