

Piper PA-34-200T, G-BPON

AAIB Bulletin No: 8/99 Ref: EW/G99/05/12 Category: 1.3

INCIDENT

Aircraft Type and Registration: Piper PA-34-200T, G-BPON

No & Type of Engines: 2 Continental TSIO-360-E piston engines

Year of Manufacture: 1975

Date & Time (UTC): 11 May 1999 at 1654 hrs

Location: Gloucestershire Airport

Type of Flight: Private

Persons on Board: Crew - 1 - Passengers - 2

Injuries: Crew - None - Passengers - None

Nature of Damage: Damage to nose of aircraft and propellers. Engines shock loaded

Commander's Licence: Commercial Pilot

Commander's Age: 36 years

Commander's Flying Experience: 728 hours (of which 58 were on type)

Last 90 days - 28 hours

Last 28 days - 16 hours

Information Source: Aircraft Accident Report Form submitted by the pilot and AAIB enquiries

The aircraft was positioning from Bournemouth to Gloucestershire Airport (Staverton). The pilot and his two passengers, who were also qualified pilots, all observed '3 greens' indicating that the landing gear was 'down-and-locked' prior to touchdown on Runway 22, which has a hard surface. The wind was 220° at 12 kt, and 25° of flap was used. The touchdown was normal, but after a very short ground roll the nose landing gear collapsed. The aircraft came to a halt with minimal damage and the occupants evacuated from the aircraft without difficulty.

When the aircraft was subsequently inspected, no fault was found within the nose landing gear extension system. There were no hydraulic leaks, the landing gear locked down properly in repeated tests and the rigging of the downlock mechanism was considered to be correct.

The PA34-200T nose gear is locked in the extended position by a drag link which, when correctly rigged, assumes an over-centre position. The drag strut is normally held in the over-centre position by a spring strut acting at one end. Full details of the rigging are contained in the Maintenance Manual, however some partial disassembly is necessary to ensure the correct amount of over-centre. It has been known for this type of nose gear to become unlocked if misrigged and/or if rough ground induces vertical loads into the system.

The aircraft is currently awaiting repairs and the nose landing gear and its retraction/extension system will be inspected and overhauled at the same time. Any significant findings will be published in an AAIB Bulletin Addendum.