

Piper PA-34-200-2, G-ELBC

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Category: 1.3

INCIDENT

Aircraft Type and Registration:

Piper PA-34-200-2, G-ELBC

No & Type of Engines:

2 Lycoming IO-360-C1E6

Year of Manufacture:

1972

Date & Time (UTC):

31 December 2001 at 1300 hrs

Location:

Stapleford Airfield, Essex

Type of Flight:

Training

Persons on Board:

Crew - 2

Passengers -
None

Injuries:

Crew - None

Passengers -
None

Nature of Damage:

Minor damage to nosecone and nose landing gear doors plus damage to nose gear centering mechanism

Commander's Licence:

Basic Commercial Pilots Licence with Instructor Rating

Commander's Age:

50 years

Commander's Flying Experience:

2,300 hours (of which 210 were on type)

Last 90 days - 90 hours

Last 28 days - 15 hours

Information Source:

Aircraft Accident Report Form submitted by the pilot

The aircraft was being used for a training flight with an instructor and student pilot aboard. When, after take-off, the landing gear was selected up, the 'Gear in Transit/Unsafe' light remained 'on'. After selecting the gear to 'down' again, the instructor observed that the main landing gear indicated 'down and locked' but there was no nose gear indication. The view in the external mirror showed that the nose gear was approximately half way down.

Having exhausted all alternative procedures to lower the nose landing gear, without success, the instructor elected to return to the airfield and asked the student to move to a rear seat in order to

move the centre of gravity rearwards. During the downwind leg he feathered one propeller and, when on short finals, and confident of landing on the runway, he feathered the other. A flapless landing was made, to keep the nose as high as possible after landing and the pilot was able to keep the nose off the ground until the aircraft was travelling at about 20 kt. When the nose sank onto the grass runway, the underside of the nosecone suffered minor damage but the propellers were undamaged. The occupants left the aircraft without further incident.

Examination by the operator's maintenance personnel revealed that the roller on the steering arm of the nose-leg had been subjected to a lateral overload against the steering shoe and had jumped out of its track. Its attachment bolt had also been bent. As a result, the nosewheel steering mechanism had failed to centre and when the landing gear retracted, the mechanism jammed, preventing the nose gear from either retracting or extending.

Further enquiries by the maintenance organisation revealed that whilst being towed by a tractor, the aircraft's steering limits had inadvertently been exceeded. The maintenance organisation has subsequently increased the visibility of the steering limit marks on the fuselage nose to make it easier for tug drivers to judge the turning limits of the aircraft during ground handling.