

No: 7/92

Ref: EW/G92/05/02

Category: 1c

Aircraft Type and Registration: Pulsar, G-BSFA

No & Type of Engines: 1 Rotax 582 piston engine

Year of Manufacture: 1992

Date & Time (UTC): 2 May 1992 at 1756 hrs

Location: White Waltham Airfield, Berkshire

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - None

Injuries: Crew - None Passengers - N/A

Nature of Damage: Nose landing gear, propeller, lower nose, engine mountings, firewall and engine shock-loaded

Commander's Licence: Private Pilot's Licence

Commander's Age: 50 years

Commander's Flying Experience: 92 hours (one on type)
Last 90 days - None

Information Source: Aircraft Accident Report Form submitted by the pilot

During take-off from runway 03 the pilot applied some back pressure to the control column, at about 40 kt, and lifted the nose wheel off the grass runway. However, the nose then lowered slowly until it contacted the grass. The pilot stated that he was aware of the nose leg striking the underside of the fuselage at this point. After the aircraft stopped on the runway, the pilot switched off the fuel, magnetos and electrical system before vacating the aircraft. He was uninjured.

Examination by the pilot/owner revealed that the nose wheel castoring fork had broken. From his examination it appeared that when the nose wheel had first lifted from the runway the wheel had castored to the left and had remained in this position when the nose of the aircraft had settled back onto the runway. The broken casting was returned to the manufacturer for detailed examination who established that the casting was of good quality, contained no flaws and did not have any 'creeping fractures'. The UK representative of the aircraft kit suppliers has assessed that the most likely cause for the nose wheel to castor to the left was either a bump/hole in the runway or the propeller wash. Both of these possible causes can stem from the fact that the tension of the free castoring nose wheel may not have been to the minimum of 5lbs as measured at the rear of the nose wheel tyre. The aircraft

kit suppliers are about to produce an upgraded nose wheel castor fork that has side supports twice as thick as the originals.

Accident Report Form submitted by the pilot	Investigator's Name:	Private Pilot License	Operator's Name:	Passengers - None
22 hours (not on QP)	Investigator's Age:	20 years	Operator's Age:	Crew - None
Last 90 days - None	Investigator's Type:	Private Pilot License	Operator's Type:	Passengers - N/A
Accident Report Form submitted by the pilot	Investigator's Source:	Private Pilot License	Operator's Source:	Passengers - None
22 hours (not on QP)	Investigator's Age:	20 years	Operator's Age:	Crew - None
Last 90 days - None	Investigator's Type:	Private Pilot License	Operator's Type:	Passengers - N/A
Accident Report Form submitted by the pilot	Investigator's Name:	Private Pilot License	Operator's Name:	Passengers - None
22 hours (not on QP)	Investigator's Age:	20 years	Operator's Age:	Crew - None
Last 90 days - None	Investigator's Type:	Private Pilot License	Operator's Type:	Passengers - N/A
Accident Report Form submitted by the pilot	Investigator's Source:	Private Pilot License	Operator's Source:	Passengers - None

The investigation revealed that the nose wheel castoring fork had broken from its examination. It appeared that when the nose wheel was lifted from the runway the wheel had broken to the left of the runway. The nose wheel had rolled back onto the runway. The pilot stated that he was aware of the nose wheel striking the underside of the fuselage and boom. After the aircraft stopped on the runway, the pilot switched off the fuel. The aircraft was damaged beyond repair. He was uninjured.

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