

**AAIB Bulletin No: 5/93**

**Ref: EW/G93/02/13**

**Category: 1c**

**Aircraft Type and Registration:** Smyth Model S Sidewinder, G-BRVH

**No & Type of Engines:** 1 Lycoming O-290G piston engine.

**Year of Manufacture:** 1992

**Date & Time (UTC):** 24 February 1993 at 1500 hrs

**Location:** Netherthorpe Airfield, Nottinghamshire

**Type of Flight:** Private

**Persons on Board:** Crew - 2                      Passengers - None

**Injuries:** Crew - None                      Passengers - N/A

**Nature of Damage:** Damage to nose landing gear, airbrake, lower engine cowling and carburettor

**Commander's Licence:** Basic Commercial Pilot's Licence

**Commander's Age:** 32 years

**Commander's Flying Experience:** 3,100 hours (of which 27 were on type)  
Last 90 days - 15 hours  
Last 28 days - 10 hours

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

The aircraft, being the first of its type in the country, was engaged on an extensive programme of test flying and had flown a total of 30 hours. On landing after one such flight, the pilot lowered the nosewheel onto the runway and immediately felt the aircraft was 'snatching'; this was accompanied by a loud bang. He raised the wheel off the runway, shut the engine down and then lowered it again. The nosewheel detached completely and the aircraft settled onto the engine cowling and came to rest. Both occupants were wearing full upper torso restraint and escaped without injury.

Subsequent investigation, by the owner, revealed that the nose landing gear castoring unit had snagged the reinforcing mesh which covered the grass surface of the runway. The subsequent distortion had caused the unit to dig into the ground and consequently the nose landing gear collapsed. As it was felt that this problem could occur on any slightly uneven surface a redesign of the nose landing gear is being undertaken.