

AAIB Bulletin No: 2/94

Ref: EW/G93/11/07

Category: 1.3

**Aircraft Type and Registration:** Pitts S-1E Special, G-OKAY

**No & Type of Engines:** 1 Lycoming IO-360-B4A piston engine

**Year of Manufacture:** 1977

**Date & Time (UTC):** 12 November 1993 at 1355 hrs

**Location:** Barton (Manchester) Airfield, Lancashire

**Type of Flight:** Private

**Persons on Board:** Crew - 1 Passengers - None

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

**Nature of Damage:** Propeller damaged and engine shock loaded; substantial damage to right top wing, fin and rudder, landing gear brake discs, calipers and centre cabane

**Commander's Licence:** Private Pilot's Licence

**Commander's Age:** 45 years

**Commander's Flying Experience:** 1,831 hours (one on type)  
Last 90 days - 16 hours  
Last 28 days - 7 hours

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

The accident occurred when the aircraft was taking off on the grass Runway 20 at Barton Airfield. The weather was fine with a surface wind of 200°/7 to 10 kt. The pilot reports that the initial take-off roll was satisfactory with wings level and the tail up to the flying attitude. When the speed had reached about 45 mph the aircraft met with a rise in the grass closely followed by a depression about 2 feet wide and up to 4 inches deep into which the left mainwheel went. As the weight of the aircraft came down the suspension absorbed the shock, spreading the landing gear legs and consequently lowering the aircraft when the propeller tips contacted the ground. Further deceleration ensued with the brake calipers digging into the soft ground and as the aircraft slowed more rapidly it overtuned onto its back. The pilot who was wearing a full upper torso restraint harness was uninjured and vacated the aircraft without difficulty.