

AAIB Bulletin No: 9/94

Ref: EW/G94/07/01

Category: 1.3

Aircraft Type and Registration:	Druine D.62B Condor, G-AWEI	
No & Type of Engines:	1 Rolls-Royce Continental O-200-A piston engine	
Year of Manufacture:	1968	
Date & Time (UTC):	1 July 1994 at 1835 hrs	
Location:	Cranfield Airport, Bedfordshire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Substantial to left main landing gear, minor to left wing and propeller	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	40 years	
Commander's Flying Experience:	343 hours (of which 21 were on type) Last 90 days - 17 hours Last 28 days - 8 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and further enquiries by the AAIB	

The pilot carried out an approach and landing on the tarmac Runway 04 at Cranfield where the weather was fine with good visibility and a surface wind of 110°/11 kt. The pilot reported that due to excessive speed during the final stages of the approach the aircraft had bounced on landing and then it was allowed to stall dropping the left wing. As the aircraft hit the runway in a 'left wing low' attitude the left main landing gear fractured. The aircraft turned to the left and ground looped through 360° before coming to rest. The pilot and passenger, who were both wearing a full harness, vacated the aircraft without injury.

The pilot assessed the cause of the accident as being due to excessive speed on landing and failing to appreciate the height to which the aircraft had bounced on first contact with the runway.

Subsequent engineering investigation revealed that the left main leg axle assembly had separated from the oleo at the diagonal weld at the bottom of the oleo tube. An oval shaped plate which had been positioned between the two diagonally cut tube ends to reinforce the weld had completely separated.

Evidence indicated that the welding at the diagonal joint had not achieved full strength. The walls of the tubes were approximately 3 mm thick, however, weld penetration on the plate was only to 1 mm in depth in some places and some of the diagonal end face surface of the tubes showed no sign of having been fused in the weld.

The main leg's maintenance history is not known. A manufacturer's Technical News Bulletin RAE/TNS/D62/1, dated 24 June 1964, which refers to Bureau Veritas Notice 64-15-22, states that this welded joint must be inspected by dye penetrant or magnifying glass after every 100 hours flown; after a heavy landing or; on renewal of the aircraft's Certificate of Airworthiness.