

No: 9/91

Ref: EW/G91/08/07

Category: 1c

Aircraft Type and Registration: Rans S9, G-BSEE
No & Type of Engines: 1 Rotax 532 piston engine
Year of Manufacture: 1990
Date & Time (UTC): 3 August 1991 at 1430 hrs
Location: Easton Maudit, nr Wellingborough, Northants
Type of Flight: Private
Persons on Board: Crew - 1 Passengers - None
Injuries: Crew - Minor Passengers - N/A
Nature of Damage: Fuselage structure distorted, right wing and tailplane crushed and landing gear collapsed
Commander's Licence: Private Pilot's Licence
Commander's Age: 38 years
Commander's Flying Experience: 157 hours (of which 42 hours were on type)
Information Source: Aircraft Accident Report Form submitted by the pilot and information from a Popular Flying Association inspector

The pilot had flown the aircraft to the private grass strip earlier in the day and prepared to depart in mid-afternoon. The ambient temperature was 23°C and on his chosen take-off direction the pilot elected to accept a slight tailwind component from the 6 to 8 kt crosswind, as he considered the runway length to be about 4 times the aircraft's normal take-off distance.

The take-off seemed unusually long but the aircraft lifted off about half-way along the runway. The pilot held it level at about 5 feet until, at about three-quarters of the way along the runway, he initiated a steep climb to 400 or 500 feet. He then banked steeply to the left to effect a reverse turn or wing-over. He noted an indicated airspeed of 40 mph and he applied some left rudder to bring the nose down. As the aircraft accelerated downwards he eased the stick backwards but felt no response. He pushed the stick forward again with no apparent response but then applied aft stick as the ground approached.

The pilot estimates that the aircraft hit the ground at an angle between 30 and 45 degrees nose down. The landing gear collapsed and the right wing hit the ground, partially collapsing and yawing the

aircraft through 180 degrees before it came to rest. The pilot's safety harness held and he evacuated the aircraft with only minor injuries.

There had been a large spillage of fuel from both fibreglass wing root tanks and both tanks were found to have split at a (bonded) flanged assembly joint.

The pilot had not been aware of any power loss during the flight.

The elevator control linkage was found to be intact but for a fracture in the aft control rod end at its attachment to the right elevator horn, which was itself bent. This fracture, however, was clearly an overload failure in bending and was therefore taken to be impact damage.