

No: 7/91 **Ref:** EW/G91/05/06 **Category:** 1c

Aircraft Type and Registration: Piper PA-28R-200, G-LEEM

No & Type of Engines: 1 Lycoming IO-360-C1C piston engine

Year of Manufacture: 1974

Date & Time (UTC): 14 May 1991 at 1626 hrs

Location: Near Newtownards Airport, County Down, N. Ireland

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - 3

Injuries: Crew - Minor Passengers - 1 minor

Nature of Damage: Aircraft destroyed

Commander's Licence: Commercial Pilot's Licence with Night and Instructor ratings

Commander's Age: 47 years

Commander's Flying Experience: 960 hours (of which 750 were on type)

Information Source: Aircraft Accident Report Form submitted by the pilot and subsequent AAIB enquiries

The aircraft, which had carried out an uneventful flight to Coventry and back earlier in the day, was loaded with 160 litres of fuel and four occupants. There was no baggage and the aircraft weighed 2610 lb (MTOW 2650 lb). Ground engine-run checks revealed no anomalies and, after the pilot had carried out the pre take-off checks, he lined up the aircraft for take-off on runway 04. The wind was from 060° at 12 kt, the temperature was +9°C and there was no significant weather.

Runway 04 has a flat level asphalt surface with a declared Take-Off Run of 759 metres. Beneath the climb path there is considerable housing development towards which the ground rises. For this reason, the pilot, when using runway 04, was in the habit of leaving the landing gear down until after passing the end of the runway and the propeller rpm at maximum until clear of the houses.

The take-off roll appeared to the pilot to be normal, rotating at about 65 kt and accelerating to 85 kt but, as the aircraft crossed the end of the runway between 100 and 200 feet, the aircraft began to lose speed and to stop climbing. The pilot checked that the throttle was fully open and that the propeller and mixture levers were fully forward. He also checked that the fuel selector was on but, as the aircraft

was losing height and speed, he did not select the other fuel tank. When it became obvious that the aircraft was not going to glide as far as the field which he had selected for a forced landing, the pilot had no choice but to aim at a garden between two of the houses just short of the field. The aircraft first struck a chimney and then the corner of the house next to the garden. The latter impact detached the left wing and the aircraft fell into the garden. There was no fire and the pilot immediately disembarked the passengers and switched off the electrical and fuel systems. Although only the rear left seat lapstrap failed at impact, the pilot received minor whiplash and states that the front seat passenger sustained minor back injuries.

Although a witness to the accident has stated that the engine was spluttering, the pilot did not hear this. However, another instructor at the airfield states that on one occasion, when he had flown this aircraft in similar conditions of wind, temperature and loading, he too had noticed that its climb performance was unacceptably poor. He therefore attempted to repeat this situation with an engineer on board but the aircraft then performed normally and there had been no recurrence reported until the accident flight. No cause of these events has yet been identified, but the operators are continuing the investigation.