

ACCIDENT

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| Aircraft Type and Registration: | Piper PA-28-181, G-MERI | |
| No & Type of Engines: | 1 Lycoming O-360-A4M | |
| Category: | 1.3 | |
| Year of Manufacture: | 1980 | |
| Date & Time (UTC): | 10 July 2005 at 1426 hrs | |
| Location: | Carlisle Airport, Cumbria | |
| Type of Flight: | Training | |
| Persons on Board: | Crew - 1 | Passengers - 3 |
| Injuries: | Crew - None | Passengers - None |
| Nature of Damage: | Aircraft damaged beyond economic repair | |
| Commander's Licence: | Commercial Pilot's Licence | |
| Commander's Age: | 33 years | |
| Commander's Flying Experience: | 492 hours (of which 6 were on type) Last 90 days - 49 hours Last 28 days - 20 hours | |
| Information Source: | Aircraft Accident Report Form submitted by the pilot | |

After completing normal power checks, the aircraft was cleared to backtrack and subsequently takeoff from asphalt Runway 25 which has a TORA of 1,714 m. Engine power and acceleration appeared normal during the take-off roll and the aircraft climbed away at 75 kt. At approximately 100 ft above the airfield, the engine suffered a rapid loss of power and the pilot prepared to land on the runway remaining. The engine then recovered to full power and the aircraft began to climb again. At this point, the pilot decided to execute a low level circuit and land back on Runway 25 due to his concerns regarding the engine performance. Whilst climbing straight ahead through 300 ft, the engine suffered a second loss of power which persisted; the engine remaining at approximately idle power. The pilot considered that there was not enough

runway remaining and selected a field to his right for a forced landing. During the descent it became apparent that the aircraft did not have sufficient gliding range to reach the selected field and that a collision with hedges in the field's undershoot was inevitable. The pilot slowed the aircraft to reduce the effect of the impact and hit the top of a hedge at right angles. The aircraft continued across a minor road and came to rest in the hedge on the opposite side with both wings and the landing gear becoming detached. All occupants were able to evacuate the aircraft through the main cockpit door.

The engine, which was approximately 10 hours away from its next 50 hour check, had no history of power problems. At the time of takeoff, the OAT was 27°C

the dew point 17°C. In these conditions the carburettor would be susceptible to icing with descent power set. Since, in this accident, the power loss occurred at take-off power, the presence of severe carburettor icing is considered very unlikely. A magneto check, carried out during the pre take-off power checks, would indicate that partial ignition failure was also unlikely.

The aircraft had last been flown the previous day and had been refuelled to full tanks at the end of that day.

The aircraft had been parked overnight inside a hanger and the pilot had checked the fuel system for water contamination prior to the accident flight. Engine power loss shortly after an aircraft has changed attitude, such as on rotation, can sometimes be attributed to water entering the fuel feed to the carburettor.

From the evidence available, however, the cause of the engine power loss could not be positively determined.