

No: 10/85

Ref: EW/G85/07/09

**Aircraft type and registration:** Piper PA 25 Pawnee G-BENL (light single engined fixed wing aircraft)

**Year of Manufacture:** 1976

**Date and time (GMT):** 10 July 1985 at 0830 hrs

**Location:** Sutton Bank, N Yorkshire

**Type of flight:** Gliding aerotow

**Persons on board:** Crew — 1                      Passengers — None

**Injuries:** Crew — Minor                      Passengers — None

**Nature of damage:** Aircraft destroyed

**Commander's Licence:** Private Pilot's Licence with IMC rating

**Commander's Age:** 24 years

**Commander's Total Flying Experience:** 164 hours (of which 31 were on type)

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

The airfield, at which this aircraft was operated as a glider tug, is positioned on the edge of the Hambleton Hills in N Yorkshire with a sheer drop of several hundred feet around its South and West facing boundaries. On this occasion, the aircraft had just been refuelled with 4 star MOGAS, prior to its first flight of the day, following which the pilot taxied to the glider launch point. The air temperature was +15°C.

On arrival, the engine was left running at 1000 to 1100 rpm for approximately 4 to 5 minutes until the cylinder head temperature rose to 250°F. A satisfactory magneto drop check was then carried out at 1700 rpm. As the glider pilot was not yet ready to launch, the pilot shut down the engine for a period of 4 to 5 minutes before re-starting.

The start of the launch was normal with the pilot reporting that 2400 rpm was achieved by the engine once full power had been selected. He states that the aircraft became airborne at 65 mph three quarters of the way along the 500 yard grass runway but, at a height of approximately 25 feet the engine suffered a total loss of power and the aircraft sank back onto the ground. By this time it was too close to the boundary of the airfield to stop. The aircraft fell over the cliff edge, pitching nose down and dropping the left wing as it did so, and began to accelerate downwards. It hit the tops of some trees and collided with the side of the cliff, turning through approximately 180° before coming to rest.

After salvage of the wreckage, the aircraft's engine, fuel system, and electrical system were examined by the maintenance organisation normally employed by the gliding club, with no pre-accident defects being discovered.

The aircraft had been operated mostly on MOGAS fuel for the previous 2½ years and, despite no record of approval for use with this fuel being discovered from examination of the aircraft or

CAA records, is reported generally as having suffered no problems. However, the pilot reports that the day prior to this accident he was forced to abandon one take off due to insufficient power following a period of idling with a hot engine.

**COMMENT**

An information leaflet issued by the CAA as No 4 in the series 'General Aviation Safety Sense' and titled 'Use of MOGAS', gives details of the limitations and precautions to be adopted with aircraft engines approved to run on motor gasoline.