

Piper PA28-161, G-NSFT

AAIB Bulletin No: 7/97 Ref: EW/G97/03/18 Category: 1.3

Aircraft Type and Registration:	Piper PA28-161, G-NSFT
No & Type of Engines:	1 Lycoming O-320-D3G piston engine
Year of Manufacture:	1985
Date & Time (UTC):	21 March 1997 at 1240 hrs
Location:	Nr Cashmoor Inn, Dorset
Type of Flight:	Private (Training)
Persons on Board:	Crew - 2 - Passengers - 1
Injuries:	Crew - None - Passengers - Minor
Nature of Damage:	Damage to landing gear, wing and forward fuselage
Commander's Licence:	Commercial Pilot's Licence with Instrument Rating and FI Rating
Commander's Age:	60 years
Commander's Flying Experience:	2,960 hours (of which 300 were on type) Last 90 days - 89 hours Last 28 days - 60 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

The aircraft, with an instructor, student and a passenger on board, had departed Bournemouth International Airport for a general handling and practice forced landing (PFL) detail in the local area. After two PFL's, terminating at 500 feet agl, had been accomplished without incident the student pilot climbed the aircraft back to 2,600 feet where a further suitable field was selected. The instructor closed the throttle and applied carburettor heat whereupon the appropriate checks were carried out by the student. At approximately 2,200 feet agl a crosswind turn was made to the left, followed by opening of the throttle to clear and warm the engine. This produced nothing more than a slight hesitant 'splutter', but no power, and so the instructor took control of the aircraft and carried out full emergency checks. At approximately 1,700 feet agl a left turn to downwind was completed, confirmatory checks were carried out and a Mayday call was transmitted to Bournemouth Approach, who responded with a transponder code. The instructor made a normal constant aspect approach into the chosen field but, as the aircraft passed over the boundary, the engine stopped. The aircraft sank heavily during the 'flare' resulting in rapid deceleration on the soft ground and failure of the

landing gear. However, the cabin remained intact and all three occupants, who were uninjured, were able to exit the aircraft without difficulty.

During a subsequent examination of the aircraft by the operator's maintenance personnel the engine, complete with carburettor, was removed and taken to an overhaul facility where it was installed on a test bed. The engine reportedly started at the first attempt and was run at varying power settings for approximately 1.5 hours with no defects being apparent. A later strip examination of the carburettor, however, revealed evidence of slight wear on the main fuel valve, which raised the possibility of a 'rich cut' having occurred whilst the engine was cool during the final descent.

An aftercast of the conditions at the time of the accident, obtained from the Met Office at Bracknell, indicated that the weather at the time of the accident, at 2000 feet, was as follows:-

Wind 070°/10 kt, Visibility 20 km, no significant weather, cloud few base 3,500 feet tops 4,800 feet, temperature PS3°C, dew point MS1°C (humidity 75%). These conditions were conducive to serious carburettor icing at descent power.