AAIB Bulletin No: 9/93 **Ref: EW/G93/06/27** **Category: 1c**

Aircraft Type and Registration:	Cessna FA150L Aerobat, G-AYRO
No & Type of Engines:	1 Continental O-200-A piston engine
Year of Manufacture:	1971
Date & Time (UTC):	30 June 1993 at 1645 hrs
Location:	Near Farley Farm airstrip, Hampshire
Type of Flight:	Private
Persons on Board:	Crew - 1 Passengers - None
Injuries:	Crew - None Passengers - N/A
Nature of Damage:	Aircraft destroyed
Commander's Licence:	Private Pilot's Licence with IMC and Night Ratings
Commander's Age:	54 years
Commander's Flying Experience:	1700 hours (of which 200 were on type) Last 90 days - 20 hours Last 28 days - 9 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot and AAIB phone inquiries

The aircraft was operating from Runway 06 at Farley Farm Airstrip. This is a grass runway 640 metres long and it was dry at the time of the accident. The reported wind was 6 kt from 060°M, the ambient temperature was around 25°C and there was no significant weather. The pilot washed the aircraft and, about an hour later, carried out pre-flight inspection and engine run-up checks, and took off. As the aircraft reached approximately 150 feet agl the engine rpm sudden decreased to approximately 1400 rpm. The pilot selected carburettor hot air but this did not restore the rpm.

The only available place for a forced landing was a steeply sloping and roughly surfaced area in a valley, in which the aircraft was landed in a southerly direction. After touchdown the aircraft went through a barbed wire fence and up an 18 inch step in the ground and turned onto its back The pilot was wearing a four point harness and was uninjured. He released himself from the harness and exited the aircraft without difficulty. There was no fire.

Strip examination by an overhaul agency found evidence of oil starvation, particularly signs of lack of oil to two of the big end bearings. The oil system on this engine is pressurised by a gerotor type pump

in a housing forming part of the crankcase cover at the back of the engine. It draws its oil from the lower part of the wet sump via a scavenge tube screwed into a threaded hole in the bottom of the housing. The joint between the tube and the housing is sealed with an elastomeric sealing washer and the tube is wire locked to the housing. The scavenge tube on G-AYRO's engine was found loose in the housing, albeit with the locking wire intact. The overhaul agency believed that the looseness may have been sufficient to have unseated the scavenge tube seal, thereby causing the pump to suck air instead of oil. No definitive reports of previous similar cases were found.