

Reims Cessna F150M, G-BDSL

AAIB Bulletin No: 10/2004	Ref: EW/G2004/02/07	Category: 1.3
Aircraft Type and Registration:	Reims Cessna F150M, G-BDSL	
No & Type of Engines:	1 O-200-A piston engine	
Year of Manufacture:	1977	
Date & Time (UTC):	16 February 2004 at 1530 hrs	
Location:	Netherthorpe Airfield, Nottinghamshire	
Type of Flight:	Training	
Persons on Board:	Crew - 2	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Damaged beyond economic repair	
Commander's Licence:	Commercial Pilot's Licence	
Commander's Age:	29 years	
Commander's Flying Experience:	537 hours (of which 262 were on type)	
	Last 90 days - 73 hours	
	Last 28 days - 22 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

The aircraft was being flown on a training exercise with an instructor and student on board. The weather was fine with a surface wind of 240°/10 kt. The student carried out the pre-flight checks confirming that there was 61 litres of fuel on board, the oil level was at a maximum and the fuel tanks had been drained of any water contamination.

After the pre-takeoff and power checks the aircraft lined up for the student to carry out a 10° flap takeoff from grass Runway 24 (Takeoff Run Available (TORA) 490 metres). After takeoff, at 300 feet agl, immediately after the flap had been retracted, the engine lost power with the RPM fluctuating between 1,000 and 2,000 RPM. The instructor took control, transmitted that they had a problem and looked for a suitable area for a forced landing. There were trees directly ahead of the aircraft so he decided to attempt a left turn back towards the airfield. The remaining engine power was insufficient for the aircraft to carry out a circuit and approach to Runway 24. The left turn however, positioned the aircraft on a close-in left base leg for grass Runway 36 (Landing Distance Available (LDA) 309 metres). The instructor selected full flap and manoeuvred the aircraft to cross Runway 36 threshold at 60 kt. After a bounce on the uneven surface the aircraft settled onto the wet and muddy grass and full braking was applied. Unfortunately braking had little effect and the aircraft overran the runway and collided with a runway end stop sign. This caused the nose landing gear to collapse, the nose to dig into the soft surface and the aircraft to pitch forward coming to rest inverted. Both the instructor and student, who were wearing lap and diagonal seat belts, were able to vacate the aircraft without injury.

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The instructor reported that the extended landing run had been caused by the down slope of the surface, the tailwind, the bounce on first touchdown and inadequate braking brought about by the wet grass.

Subsequent engineering investigation revealed, in one of the cylinders, the presence of significant carbon deposits around the exhaust valve guide. This could have resulted in the exhaust valve sticking intermittently and consequently a fluctuating loss of power.