ACCIDENT

Aircraft Type and Registration:	Thruster T600N 450, G-CCRN	
No & Type of Engines:	1 Jabiru Aircraft PTY 2200A piston engine	
Year of Manufacture:	2004	
Date & Time (UTC):	31 July 2011 at 1845 hrs	
Location:	Keal Coats, Lincolnshire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Nosewheel and nose cone damaged	
Commander's Licence:	National Private Pilot's Licence	
Commander's Age:	43 years	
Commander's Flying Experience:	Not known	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The aircraft was on approach to land when the engine appeared not to respond to increased power demands. In the subsequent forced landing in a field, the aircraft flipped onto its back due to the soft soil and stubble.

History of the flight

The pilot had performed all the normal pre-flight checks on the aircraft and engine, including a magneto check, and everything was normal. He departed for a short local flight and then intended to perform a powered approach and started to descend slowly. He increased rpm to warm the engine once but, upon repeating this a short time later, he felt that the engine was not responding and saw that it was releasing fuel, apparently from the carburettor. He was on base leg for a landing on the easterly runway and descending but he judged that he had insufficient airspeed and height to turn onto finals and make the runway. He selected a stubble field straight ahead and touched down, but when the nosewheel contacted the ground, it dug into the soft, silty soil and broke off before pitching the aircraft onto its back. The pilot and passenger were uninjured and exited the aircraft unaided.

Possible reason for the loss of power

An engineer, who is experienced on Jabiru engines, advised that the fuel probably came from the overflow/vent pipe for the carburettor bowl. On this engine, it is connected to the air filter and, should the bowl become overfilled for any reason, this could result in rough running or even a cut due to an over-rich mixture. Also, in his opinion, the reason for the overfilling was most likely to have been caused by an abnormally high crankcase pressure which causes over-activity of the mechanical fuel pump. This results in an overpressure of the fuel supply which, in turn, overcomes the float valve in the carburettor bowl. Again, he believed that the limitations of the crankcase breather pipe in the Thruster installation had sometimes led to crankcase pressurisation. The engineer also advised that, had the pilot opened the throttle fully, to increase the required fuel flow, the engine would have continued to deliver power, albeit running roughly due to the very rich mixture. The pilot stated that he did not try this, as he was instinctively inclined at the time to avoid large or sudden changes in throttle position.

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