

ACCIDENT

Aircraft Type and Registration:	Pietenpol Air Camper, G-BWVB	
No & Type of Engines:	1 Continental Motors Corp O-200-A piston engine	
Year of Manufacture:	1997 (Serial no: PFA 047-11777)	
Date & Time (UTC):	24 August 2020 at 1610 hrs	
Location:	Loadman Farm, Hexham, Northumberland	
Type of Flight:	Private	
Persons on Board:	Crew -1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Damage to landing gear, propeller and airframe	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	56 years	
Commander's Flying Experience:	474 hours (of which 8 were on type) Last 90 days - 6 hours Last 28 days - 2 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

Following the pre-takeoff power checks, which were carried out normally, the pilot lined up on the runway and increased power for takeoff. The aircraft accelerated along the runway and, as the tail came up, the pilot noticed that the ground roll was longer than usual. Shortly after lift-off, the engine lost power and the aircraft struck a bund with a fence on top, shearing off the landing gear and tipping the aircraft onto its back.

History of the flight

The aircraft had been flown on several flights since its overwinter layup in the hangar and had an engine oil filter and oil change immediately before the accident flight. The aircraft was pre-flight checked and, although the top fuel tank was empty, the main tank held enough fuel for the intended flight. The engine started normally, and the pilot taxied to the threshold of Runway 28. The runway is 425 m long with a short grass surface and a slight uphill incline in the takeoff direction. The weather was good with surface wind from 340° at 5 kt, CAVOK and an OAT of 12°C.

The pilot positioned the aircraft near the runway threshold and stopped the engine, switching off the magnetos and the electrical master switch. He then carried out a check for oil leaks following the earlier maintenance work. No leaks were found, the aircraft was started, and power, magneto and carburettor heat checks were carried out.

The pilot noticed that the surface wind had veered to the north, but conditions were still suitable for departure.

He lined up on the runway, ensured that the electric fuel pump was ON, increased the power to maximum and the aircraft accelerated. As the speed increased, the pilot lifted the tail but noticed that the ground roll was longer than usual. He confirmed the carburettor heat control was in and at that moment the aircraft lifted off. At approximately 30 ft, the engine suddenly lost all power.

The pilot lowered the nose but realised he did not have enough runway left to land safely or enough energy to clear the small bund at the edge of the field, which had a stock fence running along the top. He continued the descent, noting the ASI was reading just below 50 kt, and touched down approximately 10 m before the edge of the field. The aircraft struck the bund and fence, which sheared off the landing gear and caused the aircraft to nose over onto its back. The pilot was wearing a four-point harness and, noticing the fuel was leaking out of the main tank, released himself and vacated the aircraft, returning momentarily to switch off the fuel and electrical systems.

Discussion

Given that the engine power, magneto and carburettor heat checks were normal, the pilot considered that there had been no indication of any abnormality that would lead to the eventual loss of power. He thought that some type of fuel contamination may have been possible but the fuel had drained out whilst the aircraft was inverted on the ground so this could not be tested. After the aircraft had been recovered, the inside of the fuel tank was inspected with a borescope, but no evidence was found that may have related to fuel contamination. Incorrect fuel tank selection or switching off the fuel pump inadvertently after restarting the engine were possibilities, but he considered both unlikely because he had turned them all off when he returned to the cockpit.