

Serious Incident

Aircraft Type and Registration:	Tecnam P2008-JC, G-PFTE	
No & Type of Engines:	1 Rotax Gmbh 912 S2-01 piston engine	
Year of Manufacture:	2022 (Serial no: 1243)	
Date & Time (UTC):	1 July 2024 at 1158 hrs	
Location:	Oxford Airport	
Type of Flight:	Training	
Persons on Board:	Crew - 2	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	No visible damage to aircraft	
Commander's Licence:	Commercial Pilot's Licence	
Commander's Age:	32 years	
Commander's Flying Experience:	2,073 hours (of which 43 were on type) Last 90 days - 98 hours Last 28 days - 43 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

History of the flight

The aircraft was being flown by a student with an instructor to practice circuits and touch-and-go techniques. This activity had been in progress for approximately 1 hour without incident. As the aircraft was being flown by the student and was climbing from a touch-and-go, the instructor became aware of a reduction in power. The aircraft was at about 300 ft agl and started to sink. The instructor took control and verified full power was set and the choke was off. He noted the carburettor heat was also off. At this point the engine was at 2,000 rpm and was audibly at a lower pitch than normal but appeared to be running smoothly.

The instructor took an immediate decision to carry out a forced landing and configured the aircraft accordingly. He landed in a field about 10° left of the runway centre line. There were no injuries and the aircraft was undamaged.

Cause

Examination of the aircraft found the left carburettor throttle butterfly valve spring was missing. This led to an imbalance between the two carburettors and resulted in the power loss. The cable operated throttle system relies on the butterfly valve spring tension to open the throttle as power demands are made when the hand control is pushed forwards in the cockpit. To close the throttle, the hand control is pulled rearwards against spring pressure. Without the spring there can be a tendency for the throttle cable to 'buckle' rather than move the butterfly valve lever which is what happened in this case. Figure 1 shows the system with the spring present.



Figure 1

Cable, throttle and spring system (picture courtesy of the pilot)

An engine ground run was carried out with the spring missing, which replicated the power loss symptoms experienced during the incident. The pilot suspects the spring broke and detached during the flight.