ACCIDENT

Aircraft Type and Registration:	Jabiru UL-450, G-JAXS
No & Type of Engines:	1 Jabiru 2200A piston engine
Year of Manufacture:	2001 (Serial no: PFA 274A-13548)
Date & Time (UTC):	5 February 2018 at 1410 hrs
Location:	Welshpool Airport, Powys
Type of Flight:	Private
Persons on Board:	Crew - 1 Passengers - None
Injuries:	Crew - None Passengers - N/A
Nature of Damage:	Left strut buckled and fuselage attachment plate distorted. Propeller damaged and engine possibly shock-loaded
Commander's Licence:	National Private Pilot's Licence
Commander's Age:	54 years
Commander's Flying Experience:	114 hours (of which 2 were on type) Last 90 days - 1 hour Last 28 days - 0 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

Synopsis

As the aircraft began to accelerate for takeoff it veered quickly left, possibly due to a binding wheel. It departed the runway, traversed an adjacent grass area and struck the airfield boundary hedge.

History of the flight

Prior to this flight, the pilot had accrued 19 hours on three-axis microlight aircraft, while undertaking differences training from flex-wing microlights. This training had been completed during his last flight 89 days previously, and 7 days after he had gained his only experience flying the Jabiru UL-450.

Two days before the accident, the pilot changed the inner tube on the left mainwheel because the tyre had deflated. However, a flight instructor subsequently moved the aircraft and thought the brake on the left mainwheel was binding, so passed a message to the pilot. On the day of the accident the pilot checked the aircraft but identified no issues with the wheelbrakes[1] before start-up or while taxiing approximately 1,000 m to the threshold of the asphalt Runway 04.

Footnote

[1] The aircraft is fitted with drum brakes on both mainwheels and they are activated together, via a single master cylinder, when a hand-operated lever is pulled.

The pilot reported that, when he increased the power to begin his takeoff, he applied sufficient right rudder pedal to counteract the torque effect from the propeller. However, as the aircraft began to accelerate, it veered quickly to the left and he was unable to keep it on the runway, which is 18 m wide. He switched off the engine but could not prevent the aircraft from running approximately 46 m across an adjacent grass area and colliding with a hedge. The aircraft came to rest in the hedgerow and the pilot then closed the fuel supply before escaping through the passenger door, as his own door was blocked (Figure 1).

Figure 1

G-JAXS enmeshed in the airfield boundary hedge

After the accident a mark in the grass suggested that the left wheel was not rotating when the aircraft departed the runway. This may indicate that the left wheel was subject to an intermittent fault which caused it to bind, because no wheelbrake issues or defects were apparent when the aircraft was inspected at a maintenance facility.

In hindsight, the pilot considered it possible that a more experienced pilot might have managed to bring the aircraft to a halt without hitting the hedge. He realised, given the period that had elapsed since his last flight, he should have considered asking an instructor to accompany him for this flight.