

SERIOUS INCIDENT

Aircraft Type and Registration:	Spitfire Mk 26, G-CLKN	
No & Type of Engines:	1 Isuzu 6VE1 piston engine	
Year of Manufacture:	2019 (Serial no: PFA 324-14634)	
Date & Time (UTC):	22 April 2021 at 1455 hrs	
Location:	Brighton Airfield, Brighton, Selby	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Propeller broken and damage to left wing	
Commander's Licence:	Airline Transport Pilot's Licence	
Commander's Age:	65 years	
Commander's Flying Experience:	22,000 hours (of which 6 were on type) Last 90 days - 24 hours Last 28 days - 15 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and further enquiries by the AAIB	

Synopsis

During a bounced 'three-point' landing the pilot applied momentary full rudder which caused the tailwheel steering to disengage. The aircraft veered off the runway and struck a parked aircraft. Information from pilots of the type indicates the aircraft may be best suited to 'wheeler' landings.

History of the flight

G-CLKN was performing its eleventh test flight since being built, with the purpose of achieving its Permit to Fly¹. The wind was variable at 5 kt. The pilot reported flying an approach to Brighton Airfield's grass Runway 10 at an airspeed of 80 mph, with full flap selected, for a three-point² landing. The aircraft bounced slightly as it touched down on the runway, then settled on all three wheels, initially straight ahead. Around 100 m into its landing roll, it veered right. The pilot applied opposite rudder and brake, and thereafter a "burst of power" (with the intention of increasing the rudder's effectiveness). However, the aircraft left the runway and struck a parked aircraft (Figure 1).

Footnote

- ¹ Permit to fly – allows non-commercial flying on certain aircraft types for which a Certificate of Airworthiness or Restricted Certificate of Airworthiness is not appropriate.
- ² Three-point landing – the main landing gear and the tailwheel touch the ground simultaneously. As opposed to a 'wheel landing' where the main landing gear touch down first.

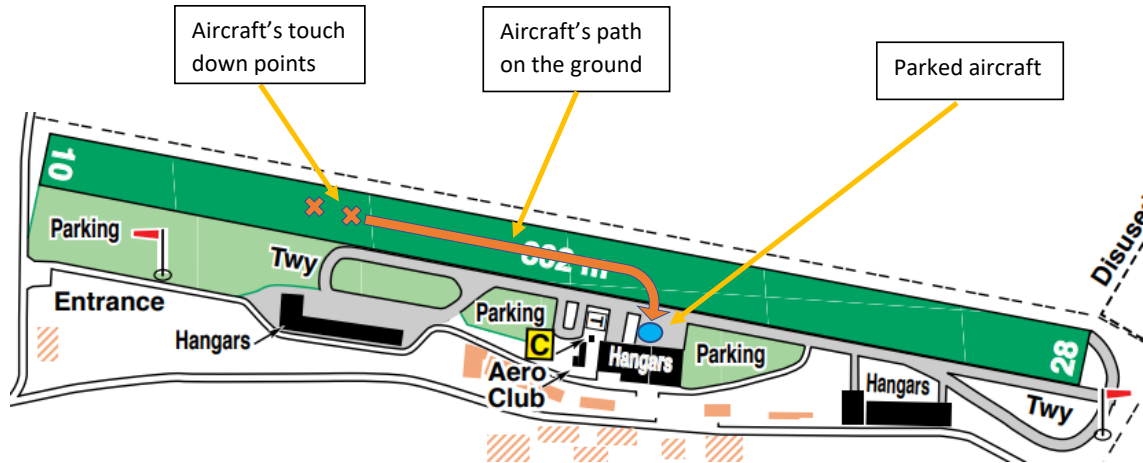


Figure 1

Pilot's description of the incident

Aircraft information

The Spitfire Mk 26 is a two seat reduced scale replica of the original Spitfire fighter aircraft. Each is manufactured as a kit for private construction.

The aircraft has retractable main landing gear with differential braking, and a steerable tailwheel. The tailwheel is connected to the rudder through its normal range of movement but disengages when the steering arm reaches full deflection. Once disengaged the tailwheel will castor.



Figure 2

G-CLKN (image used with permission)

Additional information

The pilot reported having extensive experience on tailwheel aircraft. He had first flown the Spitfire Mk 26 while test flying G-CLKN and described it as tending to land on its main landing gear first. During G-CLKN's more recent test flights, including one at Brighton earlier that day, he had been practising three-point landings instead. He believed that a small ridge in the grass runway surface contributed to the bounced landing, during which he briefly applied full rudder, causing the tailwheel steering to disengage.

Pilots of the Spitfire Mk 26 described wheel landings as being preferable on the type.

The AAIB report of the accident involving G-HRLI³ describes factors affecting the behaviour and control of tailwheel aircraft on landing.

Conclusion

It is not clear what caused the loss of control. Wheeler landings may be preferable on the type, and disengagement of the tailwheel steering during a bounced three-point landing could have been a factor.

Footnote

³ <https://www.gov.uk/aaib-reports/aaib-investigation-to-hawker-hurricane-1-g-hrli> [accessed June 2021].