ACCIDENT

Aircraft Type and Registration:	Bede BD-4, G-BOPD	
No & Type of Engines:	1 Lycoming O-320-A2B piston engine	
Year of Manufacture:	1974 (Serial no: 632)	
Date & Time (UTC):	10 July 2022 at 0930 hrs	
Location:	Fishburn Airfield, County Durham	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Left landing gear leg failed, propeller strike, and damage to left wing, left door, and engine cowls	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	68 years	
Commander's Flying Experience:	1,597 hours (of which 1,444 were on type) Last 90 days - 10 hours Last 28 days - 6 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and further enquiries by the AAIB	

Synopsis

After a normal landing the left landing gear leg detached. The leg fracture surface revealed beachmarks which were consistent with a failure due to metal fatigue. The pilot estimated that the aircraft landing gear had probably made over 2,000 landings, which the manufacturer said was probably the highest number of landings of this aircraft type.

History of the flight

The pilot had owned the BD-4 high-wing tailwheel aircraft since 1984 and had logged 1,444 hours with it. The aircraft was operated on a Permit to Fly and had accumulated 1,686 hours since manufacture in 1974. After a normal landing the pilot applied the brakes and the left landing gear leg detached. The propeller struck the ground and the aircraft veered to the left, coming to rest in a field of crops on the left side of the grass runway (Figure 1).

Aircraft examination

A photograph of the landing gear leg fracture surface revealed beachmarks which were consistent with a failure due to metal fatigue (Figure 2). The pilot contacted the aircraft manufacturer who informed him that they had not seen a fatigue failure in these landing gear legs before. The pilot estimated that he had probably made over 2,000 landings in it which the manufacturer said was probably the highest number of landings of this aircraft type.

The manufacturer no longer makes this landing gear leg type as it has been redesigned.

Figure 1
G-BOPD after the accident

Figure 2
Landing gear leg fracture surface