

Accident

Aircraft Type and Registration:	Piper PA-28R-200 Cherokee Arrow II, N747MM	
No & Type of Engines:	1 Lycoming IO-360 piston engine	
Year of Manufacture:	1973	
Date & Time (UTC):	19 September 2024 at 1500 hrs	
Location:	Oxenhope Airfield, West Yorkshire, and Tatenhill Airfield, Staffordshire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Left landing gear partially detached, wing and flap damage	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	61 years	
Commander's Flying Experience:	1,132 hours (of which 500 were on type) Last 90 days - 11 hours Last 28 days - 4 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

On final approach to Runway 11 at Oxenhope Airfield the aircraft rapidly descended in a downdraught which resulted in the left main gear leg striking a stone wall. The gear leg partially detached, and as a result the wing and flap were also damaged. The pilot and passenger, both experienced GA pilots, flew the aircraft to an airfield they considered more suitable to carry out an abnormal landing.

History of the flight

The pilot along with a passenger, also a qualified pilot, were conducting a cross-country flight from Cumbernauld to Oxenhope and then planned to fly on to Denham. The aircraft approached Oxenhope, was configured for landing with the landing gear down and full flap, and was on final to Runway 11. To the west of the threshold there was a road and a dry stone wall, and as the aircraft neared these features a sink developed destabilising the approach. The pilot immediately commenced a go-around and increased power. As he did so, there was a loud "metallic" bang emanating from the left side of the aircraft. Soon afterwards it was noticed the left main gear status light had extinguished. The aircraft also appeared to require abnormal control inputs to maintain stable flight. The pilot continued with the go-around, retracted the flaps but did not select landing gear up. He flew a gentle climbing left hand circuit over the threshold before setting a southerly course and climb.

The pilot and passenger assessed the situation and observed that whilst the right flap was up and correctly in position, the left flap had over-travelled upwards. In addition, there was visible deformation of the upper skin of the left wing.

The aircraft was climbing very slowly and required full right rudder and at least two-thirds right aileron to maintain heading.

After some discussion it was decided to land at Tatenhill Airfield which was approximately 70 miles to the south. On arrival at Tatenhill, observers on the ground advised that the left landing gear was dangling freely beneath the wing. Despite the damage to the aircraft, a normal approach was made during which preparations were made for a forced landing and to facilitate an immediate exit from the aircraft.

The aircraft touched down on the right wheel, followed by the nose, and as the aircraft decelerated the left wing tip contacted the ground. The aircraft eventually slewed through 90° and came to a stop just off the edge of the runway. Both occupants were uninjured. On examination it was clear the left landing gear had hit the wall at Oxenhope causing significant damage to the gear leg and the surrounding wing and flap structure.

Discussion

The pilot and passenger were both experienced GA pilots and have conducted their own analysis of the incident at Oxenhope. Both felt that Oxenhope can be quite challenging due to the topography of its surroundings, and they knew that it is often affected by gusty winds. This was the first time the pilot had made an approach to this airfield. However, the passenger had operated similar aircraft types in and out of Oxenhope numerous times, so briefed the pilot on factors to take into consideration. He briefed that shallower and slower approaches with good speed control were required for the downhill Runway 29. However, the approach was made to Runway 11 for which the airfield plate and website warns that downdraughts are a hazard. Unfortunately, the passenger forgot to mention this to the pilot.

With hindsight, both pilot and passenger consider the causal factors to be the pilot's unfamiliarity with the airfield, and perhaps a loss of awareness of the changing perspective outside the aircraft due to the pilot concentrating on the approach speed. The sudden sink was probably due to a downdraught just as the aircraft was about to overfly the wall at the edge of the airfield which led to the unstable approach.

Both knew the aircraft had been damaged but were unable to determine to what extent. They decided it was unwise to re-attempt a landing at Oxenhope. Having spent some time considering their options, assessing the aircraft's response at various speeds, and preparing the aircraft for the abnormal landing, they felt that Tattenhill, 70 miles south of Oxenhope, was the nearest suitable airfield. It had a hard runway, emergency cover and the flight could be continued without having to gain permission to transit controlled airspace. The route was also over benign terrain with few obstacles. This enabled them to concentrate on flying the aircraft and prepare for the abnormal landing.