

ACCIDENT

Aircraft Type and Registration:	Piper PA-28R-180 Cherokee Arrow, G-AVWO	
No & Type of Engines:	1 Lycoming IO-360-B1E piston engine	
Year of Manufacture:	1967 (Serial no: 28R-30205)	
Date & Time (UTC):	14 November 2013 at 1725 hrs	
Location:	Shoreham Airport, West Sussex	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Damage to left landing gear leg and left wing upper surface	
Commander's Licence:	Private Pilot's Licence with IMC and Night ratings	
Commander's Age:	59 years	
Commander's Flying Experience:	373 hours (of which 251 were on type) Last 90 days - 10 hours Last 28 days - 2 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The aircraft landed heavily at Shoreham following a night flight from Biggin Hill. During the subsequent return flight, the landing gear would not lock into the UP position. The pilot continued the flight with the gear down and made an uneventful landing. A subsequent inspection revealed damage to the left wing upper surface and to the gear itself. The pilot attributed the heavy landing to a false height perception due to the relatively narrow width of the runway at Shoreham.

History of the flight

After a flight from Biggin Hill lasting approximately 45 minutes the pilot received instructions from Shoreham ATC for a right base join for Runway 02. The wind was reported as 320° at 10 kt. The descent and approach were normal but the pilot later stated that he misjudged the flare and landed the aircraft "very heavily" on the asphalt surface of the runway. The aircraft handled normally on the ground and the pilot did not consider that any damage had occurred.

After parking the aircraft the pilot paid the landing fees and booked out for the return trip to Biggin Hill. The pre-flight check included a visual inspection of the landing gear by torchlight, with no damage being observed.

The aircraft took off normally and the pilot operated the gear retraction lever. However, although the 'gear in transit' light illuminated as usual, the landing gear would not lock into position. The gear was recycled a number of times but to no avail. The pilot therefore elected to continue the flight with the gear down and an uneventful landing was made at Biggin Hill.

An inspection of the aircraft conducted by a maintenance organisation reported that there was visible damage to the upper surface of the left wing, with additional damage to a wing rib and web within the landing gear well.

The pilot attributed the heavy landing to a false height perception brought about by the significant difference in runway width at Shoreham (18 m) and Biggin Hill (45 m), despite the fact that he had noted this during his pre-flight preparations and had made previous night training flights to Shoreham.