

# Piper PA-28R-200, G-FULL

<b>AAIB Bulletin No:</b> 3/2002	<b>Ref:</b> EW/G2001/07/27	<b>Category:</b> 1.3
<b>Aircraft Type and Registration:</b>	Piper PA-28R-200, G-FULL	
<b>No &amp; Type of Engines:</b>	1 Lycoming IO-360-C1C piston engine	
<b>Year of Manufacture:</b>	1974	
<b>Date &amp; Time (UTC):</b>	25 July 2001 at 1546 hrs	
<b>Location:</b>	Stapleford Aerodrome	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - 2
<b>Injuries:</b>	Crew - None	Passengers - None
<b>Nature of Damage:</b>	Shock-loaded engine, bent propeller and damage to underside of fuselage	
<b>Commander's Licence:</b>	Private Pilots Licence	
<b>Commander's Age:</b>	32 years	
<b>Commander's Flying Experience:</b>	82 hours (of which 16 were on type)	
	Last 90 days - 4 hours	
	Last 28 days - 1 hour	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

The aircraft took off from Runway 04L at Stapleford Aerodrome at 1500 hrs for a pleasure flight to Lydd-Ashford Airport. The take-off was normal and the landing gear was selected up when the aircraft reached 200 feet. During retraction the 'gear in transit' light illuminated and did not extinguish.

The pilot decided to climb to 2,000 feet in order to resolve the problem, then attempted to extend and retract the landing gear twice. The 'gear in transit' light remained illuminated throughout this procedure and only the nose and right main legs indicated down and locked. The pilot reported the situation to the Stapleford air-ground radio operator and cycled the gear once more, without success. With the gear selected down, the pilot slowed the aircraft to 87 kt and initiated the emergency gear extension procedure. Again, this did not lower the left-hand leg.

Advice from Stapleford suggested that the pilot make a low pass along Runway 28 with the landing gear extended for a visual inspection. Both Stapleford Radio and the pilot of a nearby helicopter confirmed that the left-hand gear leg had not extended. One further cycling of the gear was carried out, with the helicopter pilot reporting that the nose and right gear legs were retracting and extending correctly while the left gear leg remained retracted.

In response to a request from Stapleford, the pilot then circled to the south of the airfield for 20 minutes. Further advice from Stapleford then proposed a wheels-up landing suggesting that the pilot stop the engine at a late stage of the approach when sure of reaching the runway. The resulting wheels-up landing onto grass Runway 22R at 1546 hrs was successful and no injuries were sustained, either by the pilot or his two passengers, all of whom evacuated the aircraft via the single door. The aircraft was attended by the local police, fire brigade, ambulance and Stapleford Rescue services.

A subsequent inspection by the engineering company responsible for maintaining the aircraft revealed a failure of the bolt connecting the two arms of the torque link assembly on the left-hand leg. This bolt apparently appeared to have failed in shear during the take-off but was not retained for further examination. Once airborne, this failure had allowed the left-hand wheel to turn through some 45°, resulting in only partial retraction of the leg and its jamming inside the wheel well. This had prevented any further extension of the left landing gear leg.