

Piper PA-28-181 Cherokee Archer II, G-EFIR

AAIB Bulletin No: 7/2004	Ref: EW/G2004/03/02	Category: 1.3
Aircraft Type and Registration:	Piper PA-28-181 Cherokee Archer II, G-EFIR	
No & Type of Engines:	1 Lycoming O-360-A4M piston engine	
Year of Manufacture:	1980	
Date & Time (UTC):	3 March 2004 at 1230 hrs	
Location:	Leicester Airport, Leicester	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Damage to propeller by penetrating hangar door, left wing penetrated by edge of hangar door	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	68 years	
Commander's Flying Experience:	199 hours (of which 3 were on type)	
	Last 90 days - 1 hour	
	Last 28 days - 1 hour	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

History of events

The pilot was planning a local flight in this club aircraft, to maintain his currency on the type. He started a routine pre-flight check and noted that the fuel level was below half-full and so, in accordance with the flying club's practice, he decided to refuel the aircraft. He completed the pre-flight inspection and strapped in, intending to taxi the 50 to 60 metres to the fuel pumps, starting from a position parallel to the front of the hangar with one open hangar door a few feet from his left wing tip. It took a number of attempts to start the engine and then, as the engine started, the aircraft started to move forward rapidly. As it did so it turned through some 20 degrees to the left and struck the far hangar door, about 15 metres from the aircraft's starting position. The propeller penetrated the surface of the door and the edge of the door penetrated the wing, at about mid-span, through the leading edge structure of the wing to the main spar.

Aircraft examination

After the accident it was established that the aircraft brake system, including the parking brake, was operating correctly. The pilot commented that the whole event had occurred very quickly and that he

had been taken so much by surprise that he had been unable to react other than by attempting to push on the brake pedals. He also stated that it was his normal practice to check the parking brake before an engine start-up and to check the security of his seat but commented that, because his intention had been to taxi to the fuel pumps and not for takeoff, he may not have been as careful as normal with either of these actions. It is possible, therefore, that the pilot's difficulties in applying sufficient brake to slow the aircraft may have been partly due to some movement of the seat.

Comments

The senior flying instructor who reported the accident to the AAIB made a number of useful comments relating to this accident. He considered that the aircraft's rapid movement would have needed at least 2,000 RPM from the engine and that, whatever the purpose of starting and taxiing an aircraft, the same precautions should be preserved. In particular, the pilot should ensure that the parking brake, if fitted, is securely set ON, that the seats and harness are physically checked as secure and that the pilot is in a position immediately to retard the engine speed to idle after start-up.