

INCIDENT

Aircraft Type and Registration:	Piper PA-38-112, G-BJUR	
No & Type of Engines:	1 Lycoming O-235-L2C piston engine	
Year of Manufacture:	1979	
Date & Time (UTC):	13 May 2005 at 1300 hrs	
Location:	Nottingham Airfield, Tollerton, Nottinghamshire	
Type of Flight:	Training	
Persons on Board:	Crew - 2	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Damaged windscreen	
Commander's Licence:	Commercial Pilot's Licence	
Commander's Age:	37 years	
Commander's Flying Experience:	2,294 hours (of which 1,613 were on type) Last 90 days - 140 hours Last 28 days - 51 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Whilst preparing for a training flight the instructor asked his student to check the fuel and engine oil levels. The student reported that the oil level appeared a little low and was instructed to direct the ground crew to put a quart of oil into the engine. This was accomplished and when the instructor subsequently approached the aircraft, the student had boarded it and was in the process of putting on his harness. The instructor checked the fuel levels in both wing tanks before checking the engine oil level by means of the dipstick, closing the cowling and boarding the aircraft.

After conducting the necessary checks the instructor carried out a normal takeoff. However, at a height of approximately 500 feet, whilst the aircraft was turning and banking to the left, there was a bang and the left side engine cowling was seen to rise up, partially blocking the view forward. It was apparent that the cowling had struck the lower part of the right hand side of the windscreen, producing a hole several inches across. The instructor levelled the aircraft, transmitted a 'PAN' call, on the radio and subsequently landed back at the airfield without further event.

This type of aircraft is equipped with left and right side engine cowlings, each mounted on a longitudinally orientated hinge either side of the aircraft centre line and secured by two 'butterfly clip' latches on the lower edges. Both butterfly clips were noted to be missing from the left side cowling on G-BJUR after landing.

The instructor reported that he had on occasions, whilst conducting daily inspections on other aircraft in the fleet, noted that butterfly clips were missing from the cowlings. He therefore concluded that at least one clip had been lost from the subject aircraft on a previous flight. However, it is possible in this instance that the student, when asked to check the oil, had initially looked in the left side of the engine (the dipstick and oil filler are in fact located on the right). This raised the possibility that the left cowling may not have been properly secured before the flight.