

Piper PA-38-112, G-BYMC

AAIB Bulletin No: 1/2002 Ref: EW/G2001/11/18

Category: 1.3

INCIDENT

Aircraft Type and Registration:	Piper PA-38-112, G-BYMC	
No & Type of Engines:	1 Lycoming O-235-L2C piston engine	
Year of Manufacture:	1982	
Date & Time (UTC):	23 November 2001 at 1425 hrs	
Location:	Near Alsager, Staffordshire	
Type of Flight:	Training	
Persons on Board:	Crew - 2	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Damage to engine, left wing tip and leading edge	
Commander's Licence:	Basic Commercial Pilots Licence	
Commander's Age:	28 years	
Commander's Flying Experience:	843 hours (of which 609 were on type)	
	Last 90 days - 71 hours	
	Last 28 days - 24 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

The aircraft was being used for an instructional flight and following a normal take off and climb, the aircraft was flown out of the Manchester Airport controlled airspace to an area suitable for the intended exercise which was practice forced landings (PFLs). Having successfully carried out two PFLs into one field, the aircraft was climbing away to move to a new area to do some further PFLs when the crew heard a loud 'pop' followed by a reduction in the power. The engine was also observed to be running very roughly and vibrating badly.

Having carried out all the relevant checks, without success, the instructor decided to make a full forced landing. This was executed without injury to either occupant, but superficial damage to the left wing tip and leading edge occurred when the wingtip struck a hedge at the end of the field.

Inspection by the aircraft's maintenance organisation revealed that the lower plug of the front right (No 1) cylinder had come out of its threaded hole and had been retained by its lead. Inspection of the threads of the plug and cylinder head showed that only the last two threads of both showed any evidence of engagement and wear, indicating that the plug had not been installed correctly and tightened at the last 50 hour maintenance check, which had been done 16 flying hours before this incident.

The maintenance organisation has taken action to prevent a recurrence of this problem.